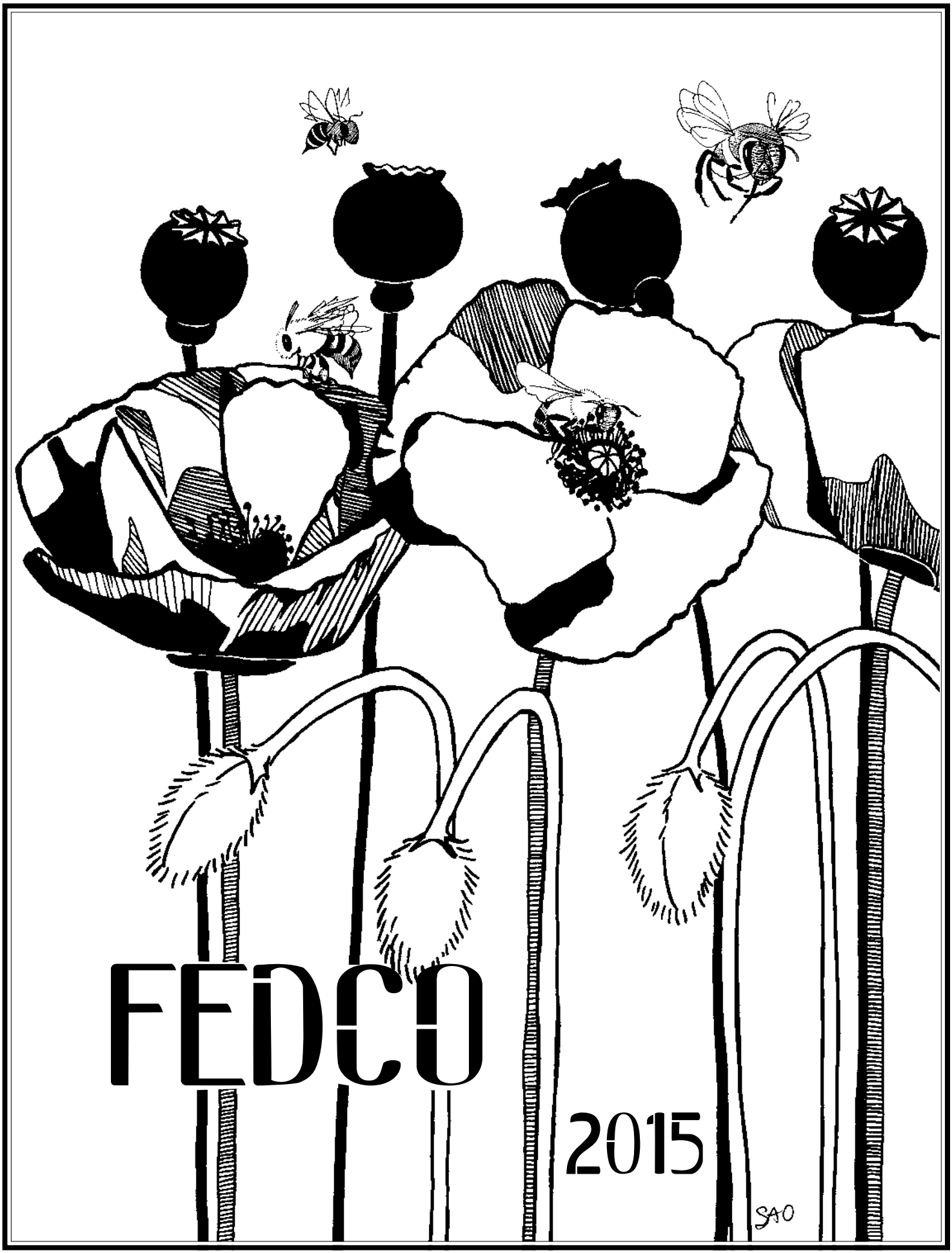
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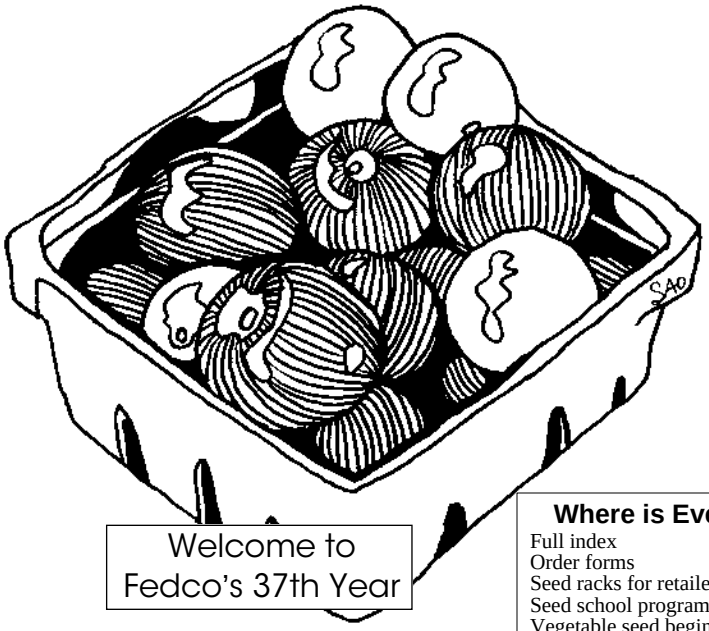

## Full Index on Back Cover

### Fedco Facilitation
### phone: (207) 426-9900
### Request a catalog: (207) 426-0090
### email: questions@fedcoseeds.com

Phone hours: January–mid-May: Mon–Fri, 9am–4pm.
Mid-May–December: Tues, Weds, Thurs, 9am–3pm.

Contact us to:

- Request more catalogs or order forms. Or download these from our website.
- Get answers to ordering questions.
- Receive freight quotes and prices for bulk quantities for Moose Tubers and Organic Growers Supply.
- Resolve problems.
- Report seed quality issues. Be prepared with your order number, variety name, packet size bought, lot number if available, what went wrong.

## Welcome to Fedco's 37th Year

A very satisfactory growing season, albeit a bit on the chilly side, followed our harshest winter in more than twenty years. It ended well, excessive summer rains giving way to a warm dry spell beginning in late August that brought many summer crops to fruition and promised a better finish for our seed crops than last year.

The extreme winter helped cause our first Seeds sales decrease in 32 years. We've responded by making significant changes. We're celebrating our tenth year taking orders on our website with a major redesign, our first since we came online in 2006.

Our winter catalog also has had its first facelift in sixteen years, starting right here, with the facing page introducing our new seed varieties. We've moved our ordering information to adjacent the order forms in the center of the catalog. We've signposted our cultural information better, put the disease charts in each section, and made the supplier codes more accessible. We reorganized peppers and melons to make the various types easier to find. The changes go deeper than just our looks; we've added nearly 30 certified-organic selections and almost 50 new varieties. These changes were heavily influenced by your phone calls, order and email comments and survey suggestions. We hope that you like them and that they make ordering from Fedco easier and more pleasurable.

Happy growing!
–CR Lawn

### Where is Everything?


| | |
|---|---|
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| Seed school programs | 4 |
| Vegetable seed begins | 5 |
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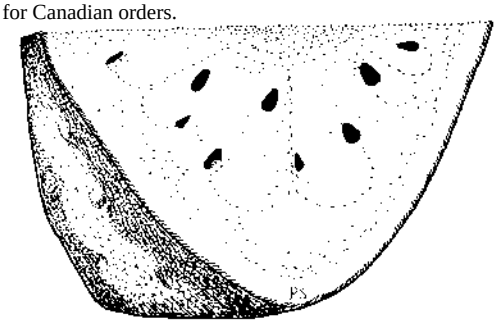
### Visit our Website: fedcoseeds.com

- to order online.
- to download order forms and catalogs.
- for up-to-date information on backorders and out-of-stocks for all divisions.
- to access online specials that arrived too late to make the catalog.
- to see photos of many of our cultivars.
- to access additional info: resource page, market growers' section, etc.
- for Canadian orders.



### How to Order

**Order online** at **fedcoseeds.com**.
**Mail** your order to Fedco Seeds,
PO Box 520, Waterville, ME 04903.
All orders must include check, money order, or Visa, MasterCard, Discover or American Express information. No cash or food stamps, please!
**Each division has its own shopping cart/order form. Detailed ordering information and forms:**


Seeds, see pages 78-80.
Moose Tubers, pages 81, 85.
Organic Growers Supply, pages 83, 85.


### What Sets FEDCO Seeds Apart from the Pack

Our goal is to offer value. Value is the best possible product for the price. What goes into value?

**Price**
- Fair prices, coast to coast
- Generous packets
- Free shipping for all Seed orders over $30
- Volume discounts and group orders: We support cooperation.

**Product**
- Honest, comprehensive and original descriptions
- Commitment to quality
- Selections for cold climates and more
- All untreated seed
- No genetically engineered products. No Monsanto products.

**Service**
- Accuracy and attention to detail.

**Ethical Choices**
- Shared ownership and profits: We are a cooperative.
- Workplace democracy
- Political, social and agricultural commentary
- Humor

We ship seeds to Canada: Visit our website for details.

### Ordering information

| Fedco Division | Goods offered | Order form | Discount deadline | Ordering deadline | Shipments |
|---|---|---|---|---|---|
| **Seeds** | vegetables, flowers, herbs | page 79 | none | mail: March 20<br>online: October 31 | January 7–April<br>January 7–Nov. |
| **Moose Tubers** | seed potatoes, onion sets, ginger, sweet potato | page 81 | February 27 | March 20 | early April–early May |
| **Organic Growers Supply** | soil amendments, cover crops, tools, supplies & books | page 83 | none | none | year-round |

Our FEDCO TREES catalog, available in October, lists fruit trees, berry bushes, ornamentals, perennials and tender bulbs.
Our FEDCO BULBS catalog, available in June, lists fall-planted flowerbulbs and garlic.

## Tough Questions, Hard Choices

In this catalog we celebrate the importance of pollinators and address their peril. Not much significant has changed since I first asked in these pages in 1995, "Do You Know Where Your Seed Comes From?" The names of the chemicals have changed, some of the technologies of choice to deliver them have changed, but the penetration of the seed industry by multinational pharmaceutical and chemical corporations has not.

Some of our seed in this catalog comes from Hild (3 varieties), a subsidiary of Bayer, and more from Syngenta (20 varieties). Each of these corporations is a manufacturer of neonicotinoids, a class of systemic insecticides that are absorbed and transmitted to all parts of plants including pollen and nectar, and have been found by the UN Food and Agriculture Organization (FAO) to be "acutely toxic for bees."

In 2013 after conducting a formal review of existing studies, the European Food Safety Authority concluded that neonicotinoids pose an unacceptably high risk to bees. Following their report the European Union voted for a 2-year moratorium restricting the use of imidacloprid, clothianidin and thiamethoxam on crops that attract bees. Syngenta has taken them to court, claiming it was based on a false process and inaccurate assessment.

After paying Bayer a $120 million settlement resolving a patent dispute, in 2002 Syngenta gained worldwide rights to thiamethoxam. In 2009, the last year for which figures are available, sales of thiamethoxam reached $627 million, second highest among the seven neonics. Thiamethoxam is used for seed coatings. More than 90% of all corn seed and half of soybean seed is treated with neonics.

Despite being hit with the EU restrictions and with a class-action lawsuit by Canadian beekeepers alleging $450 million in damages from thiamethoxam and its metabolite imidacloprid over the past seven years, Syngenta recently petitioned the EPA to increase the legal tolerance of residues for these neonics in numerous crops. Seeking to use them as leaf sprays rather than just as seed treatments, they asked for a fifty-fold tolerance increase for sweet corn, a twenty-fold increase for sunflowers, etc.

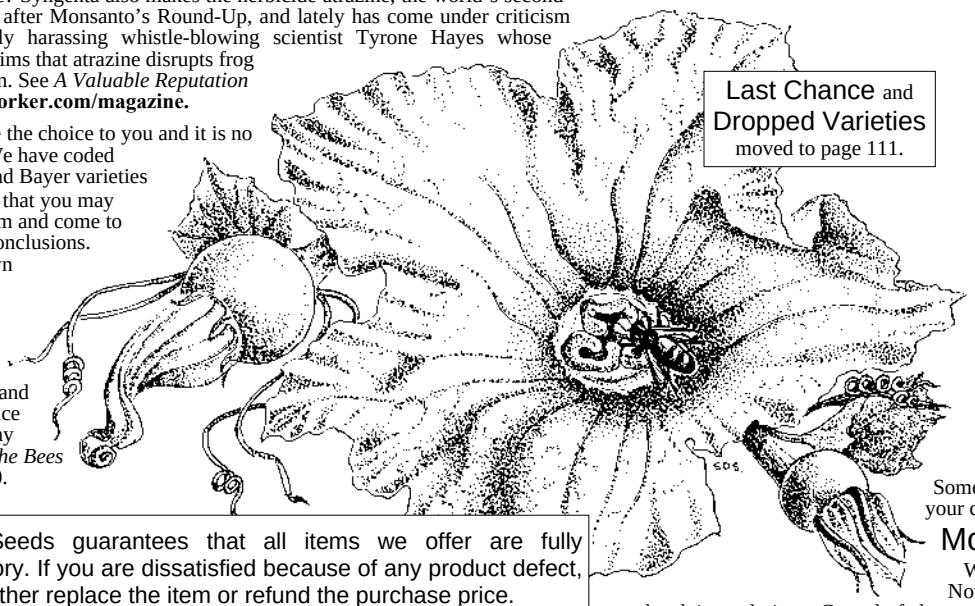
Fedco does not sell treated seed. Nevertheless, continuing to offer even untreated seed from Syngenta poses ethical dilemmas. On the one hand, like Seminis/Monsanto, with whom we parted company in 2006, Syngenta boasts a high-quality line, delivers consistently high germination, always ships on time, and almost never errs. Market and home gardeners count on their superb varieties, many of which have no equals, such as Raven zucchini (2,652 packets last year), Gustus brussels sprouts (1,675), Masai haricot vert (1,629) and the venerable Silver Queen sweet corn (622). Our customers, especially those making part of their living from these varieties, would sorely miss them and might just shop for them elsewhere (and they are widely available).

On the other hand, can we, with a straight face, call our agriculture sustainable if we are addicted to varieties produced by multinational corporations that thrive by feeding a system dependent on the toxic chemicals they manufacture? Syngenta also makes the herbicide atrazine, the world's second-best selling after Monsanto's Round-Up, and lately has come under criticism for allegedly harassing whistle-blowing scientist Tyrone Hayes whose research claims that atrazine disrupts frog reproduction. See *A Valuable Reputation* **www.newyorker.com/magazine.**

So we leave the choice to you and it is no easy one. We have coded Syngenta and Bayer varieties with a ⓒ so that you may identify them and come to your own conclusions.

–CR Lawn

For further background information about neo-nicotinoids and bees see Alice Percy's essay *Bayer and the Bees* on page 140.



Last Chance and Dropped Varieties moved to page 111.

## New Seed Varieties for 2015

**491** Sumo soybean OG: We wrestled with the snow pea but we pinned the edamame!
**622** SugarPearl hybrid Sweet Corn: A gem of an early white sweet corn!
**652** Tuxana OP sweet corn OG: Fedco's corn selection goes formal!
**885** Mega sugarsnap: Big pods, big yields, big flavor!
**974** Magnificenza hybrid muskmelon OG: C'est magnifique!
**1484** Alexandria summer squash: Early and dependable Lebanese type!
**1965** Baby Bottle gourd OG: Wean your gourd program away from biggies!
**2090** Napoli carrot OG: Get to first base with your winter carrot production!
**2095** Jeanette carrot OG: Crunchy sweet organic hybrid!
**2124** Albino beet: At last a white beet that doesn't scorch!
**2130** Boldor beet: Bold, Boldor, boldest yellow beet!
**2265** Watermelon radish: Beauty and consistency in this winter radish!
**2280** Miyashige Daikon radish: Mild and crisp fall crop from Japan!
**2418** Megaton leek OG: More consistent than explosive!
**2421** Lancelot leek: Guinevere would approve of this leek!
**2442** Camelot hybrid shallot: Now only King Arthur is missing!
**2590** Caucasian Mountain spinach: The next new permaculture sensation!
**2715** Balady Aswan lettuce OG: A native Egyptian form of celtuce!
**2772** Midnight Ruffles lettuce: Flounces into your salads!
**2859** Kalura Romaine lettuce: Fedco brings back an esteemed variety!
**2862** Better Devil lettuce OG: A hell of a good lettuce!
**3020** Astro arugula OG: Blessed are the meek of palate, they receive Astro!
**3231** Golden Frill mustard: Lift and separate your salads!
**3234** Spicy Green mustard: Perfect with green eggs and ham!
**3282** Green Shiso: A pungent condiment not for wussies!
**3309** Green Super broccoli: Super performer and saves space, too!
**3362** Summer Glory cabbage: Mine eyes have seen the glory of its pointy little head!
**3425** SnowBowl hybrid cauliflower: Lovely tight heads will bowl you over!
**3441** Vates collard: Vates rates!
**3450** Vates kale OG: An old standby for cold-hardy greens!
**3460** Russian Frills kale: This kale thrills with its many frills!
**4005** Aunt Molly's ground cherry: A treat in every papery husk!
**4103** Gardener's Sweetheart cherry tomato OG: Bonsall shares his sweetheart!
**4253** Jasper hybrid cherry tomato OG: Resists late blight, night after night!
**4314** Tarwi: A lost treasure of the Incas rediscovered!
**4512** Chia: A new pet for your garden and diet!
**4551** Epazote OG: 'Tis the Season for Mexican cuisine!
**4803** Summer Pastels achillea: Attract pollinators and admiring gazes, too!
**4836** Carnival amaranth: Hot pink brings the party!
**4918** Oopsy Daisy calendula: Slip in some new colors from an old favorite!
**5039** Tango cosmos: Would like to have your next dance!
**5066** Superb Pink dianthus: Fragrant and fancy!
**5100** New Day gazania: Welcome the morning sun with warm colors!
**5112** Goatsbeard: Tall and well-behaved in the shady border!
**5222** Bambino marigold: The Babe would have loved this flower!
**5331** Phacelia: Attract pollinators!
**5387** Lazy Daze portulaca: For those lazy, hazy crazy days of summer!
**5663** Ideal Mix verbena: Ideal for beds and bouquets!

## Back in 2015

**333** Limelight bean
**636** Luther Hill corn OG
**663** Japanese Hulless corn
**820** Green Beauty snow pea
**1665** Lower Salmon River squash
**2240** Hailstone radish
**2253** Plum Purple radish OG
**2426** Siegfried Frost leek OG
**2767** Devil's Ears lettuce OG
**2792** Revolution lettuce OG
**2877** Marshall lettuce OG
**3325** Umpqua broccoli OG
**3725** Staddon's Select pepper OG
**3741** Amish Pimiento pepper OG
**3856** Ho Chi Minh pepper
**4081** Mark Twain tomato OG
**4302** Burbank Barley
**4511** Chamomile
**5236** Tashkent marigold OG
**5530** Procut Lemon sunflower

Some of these are in short supply; consult your catalog and order early accordingly.

## More in 2015? (Maybe!)

While our catalog is frozen at its early November print deadline, our website is updated in real time. Consult fedcoseeds.com to see what else might be available and find prices and descriptions. Possibilities include Northeaster and Fortex pole beans and, later in the Spring, Gilboa hybrid pepper and Beer Friend edamame.

## Co-op Member-Only Specials in 2015

Each year we make a small number of special items that are in short supply available to our co-op members only. You must be a Fedco coop member to order these items. You may join with your order. See p. 89 for details.

**558** Sumptuous hybrid sweet corn
**885** Mega sugarsnap

Fedco Seeds guarantees that all items we offer are fully satisfactory. If you are dissatisfied because of any product defect, we will either replace the item or refund the purchase price.

Limitation of Liability

Because good results depend upon weather, soil and cultural practices over which we have no control, we limit our liability in all instances to the purchase price of the seeds, as is customary in the seed trade. The liability of Fedco Seeds for breach of warranty, or any loss or damages arising out of the purchase or use of our products, including loss or damages resulting from any negligence whatsoever on our part, or strict liability in tort, shall be limited to the purchase price. By acceptance of the merchandise, the buyer acknowledges that the limitations and disclaimers herein described are conditions of sale, and that they constitute the entire agreement between the parties regarding any warranty or liability.

Claims for errors in your order must be presented within 30 days of receipt of your order. Claims for defects in Fedco Seeds' products should be presented to Fedco Seeds as soon as possible after discovery. Failure to assert claims within 30 days after discovery renders this warranty null and void.

## Fedco's Packet Rack Program for Retailers

Portable cardboard packet racks suitable for all our A-size packets. The top slots hold about 4 packets of peas, beans or corn; all slots hold at least 10 packets of the other crops. Dimensions for the 28-slot rack are 14" deep, 20" wide, 62" high. For the 56-slot rack 14x30x64". Each collection has 28 or 56 varieties and either 5 or 10 packets of each variety.

**101 Popular Favorites** 28 best-selling varieties. 20 vegetables, 4 herbs, 4 flowers, 6 organic.
- **A**=5 packets of each with rack, $189.80
- **B**=10 packets of each with rack, $349.50
- **C**=5 packets of eachwithout rack, $159.80
- **D**=10 packets of each without rack, $319.50

**102 Popular Favorites** 56 best-selling varieties. 42 vegetables, 7 herbs, 7 flowers, 18 organic.
- **A**=5 packets of each with rack, $393.20
- **B**=10 packets of each with rack, $756.30
- **C**=5 packets of eachwithout rack, $363.20
- **D**=10 packets of each without rack, $726.30

**103 All Certified Organic** 28 best-selling organic varieties. 23 vegetables, 2 herbs, 3 flowers.
- **A**=5 packets of each with rack, $228.00
- **B**=10 packets of each with rack, $426.00
- **C**=5 packets of eachwithout rack, $198.00
- **D**=10 packets of each without rack, $396.00

**104 All Certified Organic** 56 best-selling organic varieties. 41 vegetables,7 herbs, 8 flowers.
- **A**=5 packets of each with rack, $432.30
- **B**=10 packets of each with rack, $834.60
- **C**=5 packets of eachwithout rack, $402.30
- **D**=10 packets of each without rack, 804.60

**105 Heirloom Collection** 28 heirloom varieties. 24 vegetables, 1 herb, 3 flowers, 12 organic.
- **A**=5 packets of each with rack, $202.40
- **B**=10 packets of each with rack, $374.70
- **C**=5 packets of eachwithout rack, $172.40
- **D**=10 packets of each without rack, $344.70

**106 Heirloom Collection** 56 heirloom varieties. 44 vegetables, 4 herbs, 8 flowers, 23 organic.
- **A**=5 packets of each with rack, $369.30
- **B**=10 packets of each with rack, $708.60
- **C**=5 packets of eachwithout rack, $339.30
- **D**=10 packets of each without rack, $678.60

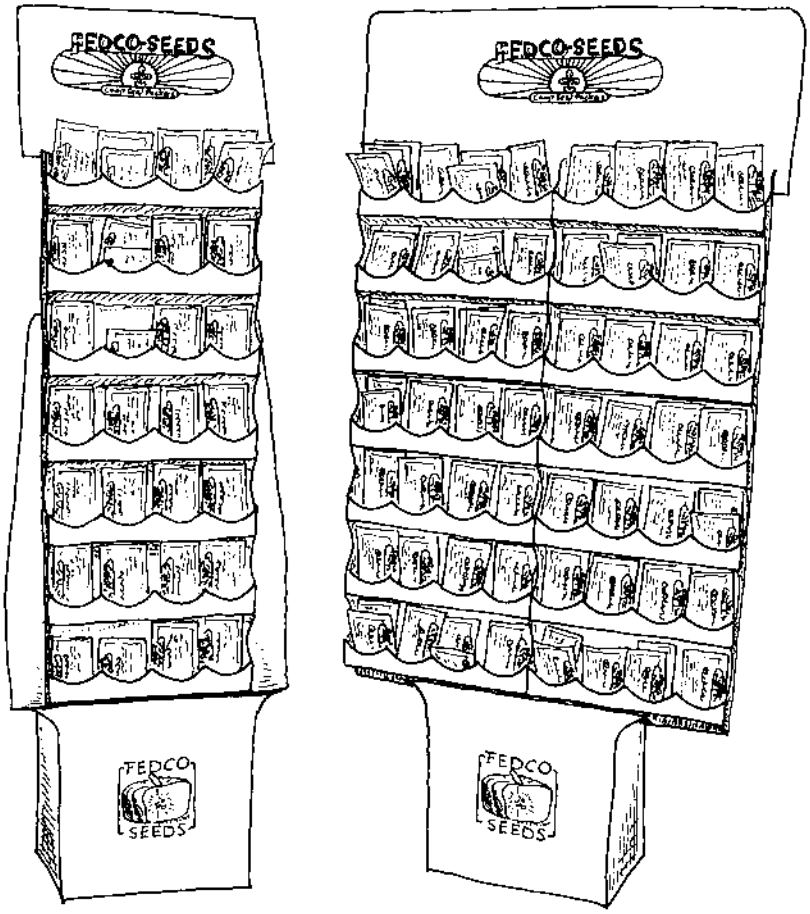
**Seed Envelopes** Our reclosable seed envelopes, plain white with no logo. Use them for seed saving, repacking bulk seed, or tucking away small objects. Two sizes. All volume discounts apply.

**111SD Seed Envelopes** 3¼ x 4¾"
- **A**=bundle of 10 , $2.25 **B**=bundle of 50, $6.00
- **C**=bundle of 100, $9.00

**112SE Seed Envelopes** 3⅝"x 5½"
- **A**=bundle of 10, $2.50 **B**=bundle of 50, $7.00
- **C**=bundle of 100, $11.00

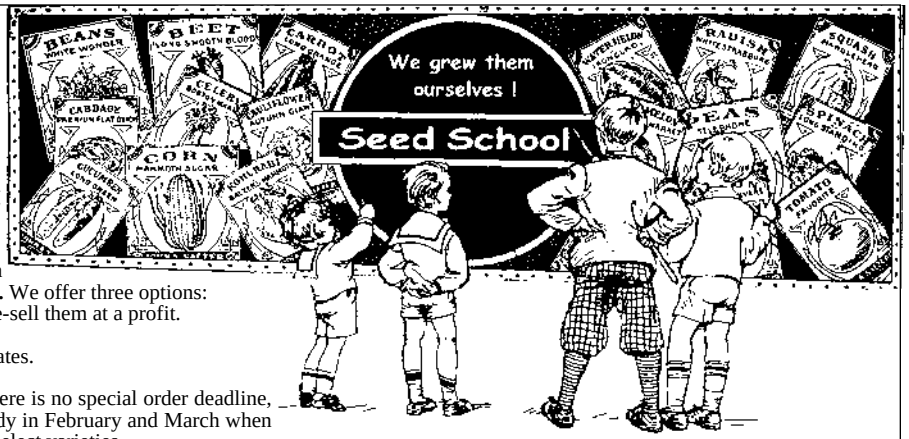
Ground rules:
- **Collections qualify for all regular volume discounts**, as do re-orders of $50 and over.
- Collections may be combined with individual packet orders to reach higher discount levels.
- Packets are our regular design. We will furnish samples on request.
- Pre-order, prepay.
- Free shipping on all orders.
- All re-orders will be advanced to the front of the line for fast service.
- No returns.
- Varieties our choice; no substitutions.
- We will make substitutions if we run out of any items in the collections.
- Reorder requests will be honored until June 1.
- Retailers remove packets from racks by July 31; don't sell stale seed.
- No suggested retail. Determine the profit margin you need.
- Questions? email **questions@fedcoseeds.com**.

For a list of specific items in each collection, download from our website at www.fedcoseeds.com or write or call for a paper copy.




## Sell Seeds for a Green School Fundraiser!

*"Once again, this has been an exciting and rewarding experience. Thank you so much for offering this program. —Carrie King, The Grateful Garden at Chester Andover Elementary School, Chester, VT, March 8, 2014.*




Tired of candy sales and want a school fund-raiser with a wholesome green message? **Start a school seed store.** We offer three options:
- Packet Seed Store: Purchase multiple packets and re-sell them at a profit. Get our volume discount plus 5%.
- Bulk Seed Store: 29 participants in 2013 from 12 states. Get our volume discount plus 5%.

You may order by mail or online with either option. There is no special order deadline, but plan to order early so you will have the packets ready in February and March when your customers are thinking gardens. We can help you select varieties.

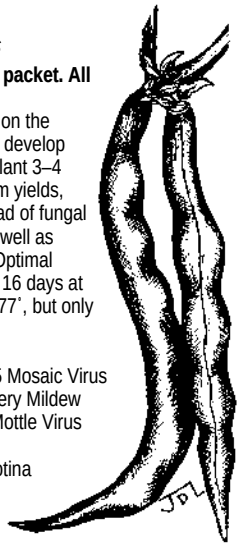
- Convenience Pre-order: 63 participants in 2014 distributed nearly 21,000 seed packets and raised almost $20,000 for their groups. We customize an order form with 25 popular easy-to-grow varieties for each participating group. We offer two options: our regular selection or an all-organic listing. Choose one or both, download and circulate to take orders from your community. We split the take with your school group, PTA or non-profit.
- *You must make a commitment to sell at least 100 packets.*

- **The deadline to contact us with intent to participate is Feb. 20 and to submit your order is March 13.**

We will work with any school, PTA or other interested *nonprofit youth group*. Contact CR Lawn by email at *seedquality@fedcoseeds.com*. Please, no calls.

See **growseed.org/seedstewards.html** for seed curriculum and educational workshops.

## BEANS *Phaseolus vulgaris*



**2 oz packet sows 25 ft; 1 lb, 200 ft. Avg 180 seeds/2 oz packet. All beans are open-pollinated.**

**Culture:** Legumes have moderate fertility needs. Go easy on the nitrogen. Excessive nitrogen may induce some varieties to develop vines in moist hot weather. Tender, will not survive frost. Plant 3–4 seeds/ft. in rows 24–30" apart. Pick frequently for maximum yields, but avoid disturbing foliage in wet weather to prevent spread of fungal diseases. White-seeded beans usually don't germinate as well as dark-seeded. Minimum germination soil temperature 60˚. Optimal range 60–80˚. Optimal temperature 77˚. Emergence takes 16 days at 59˚; only 8 days at 77˚. Produce 97% normal seedlings at 77˚, but only 47% at 86˚.

**Diseases:**

| | | | |
|---|---|---|---|
| ANTH | Anthracnose | NY 15 | NY 15 Mosaic Virus |
| BBS | Bacterial Brown Spot | PM | Powdery Mildew |
| CBMV | Common Bean Mosaic Virus | PMV | Pod Mottle Virus |
| CTV | Curly Top Virus | R | Rust |
| DM | Downy Mildew | SC | Sclerotina |
| HB | Halo Blight | | |

Wider spacing reduces likelihood of SC (white mold). Don't disturb wet foliage.

### BUSH GREEN BEANS

**Provider** (50 days) Nothing provides like Provider. For highest early yields—even under adverse conditions—and rich beany taste, old reliable Provider can't be beat. Also excellent for canning and "my choice for freezing and dilly beans," says Elaine Carlson of Cape Porpoise, ME. Noted for its concentrated sets of round 5–5½" pods. Anne Elder of Community Farm of Ann Arbor praises its amazing resilience: it and **225** Royal Burgundy re-flower repeatedly after heavy pickings followed by rains. Came in one day ahead of Contender for earliest in our observation plot. Our best-selling variety in the catalog year after year. Released by USDA in 1965. Purple seed. Resistant to CBMV, NY 15, PM, DM, PMV.

**204PR Provider** ③
**A**=2oz, $1.50 **B**=8oz, $4.20 **C**=1lb, $6.60 **D**=5lb, $22.00
**E**=10lb, $36.00 **K**=25lb, $80.00 **L**=50lb, $150.00

**205PO Provider OG** ID-certified. ①
**A**=2oz, $2.20 **B**=8oz, $7.00 **C**=1lb, $12.00 **D**=5lb, $55.00
**E**=10lb, $100.00 **K**=25lb, $240.00 **L**=50lb, $450.00

**208BV Black Valentine** (52 days) Introduced by Peter Henderson & Co. in 1897, a winner for heavy early yields and outstanding flavor in our test of 25 bush bean varieties. Well adapted to our cool temperatures, loaded with sweet succulent round beans in the first picking. Good for freezing, retaining a meaty texture. 6" pods with tendency to curve. Has some drought resistance, though later pickings yield only moderately. Black kidney-shaped seed. Supplier has discontinued. No new crop. All seed is held over, tested at 92%. *This is the last year we will carry; order early!* ③
**A**=2oz, $1.50 **B**=8oz, $4.50

**210ST Strike** (53 days) Market growers will strike it rich with heavy yields of medium-green 5½" slender smooth straight round pods. Strike sets the standard for earliness, appearance and ease of picking, and has a pleasing sweet beany taste. White seed. Resistant to NY 15 and CBMV. ③
**A**=2oz, $1.50 **B**=8oz, $4.20 **C**=1lb, $6.60 **D**=5lb, $22.00
**E**=10lb, $36.00 **K**=25lb, $80.00 **L**=50lb, $150.00

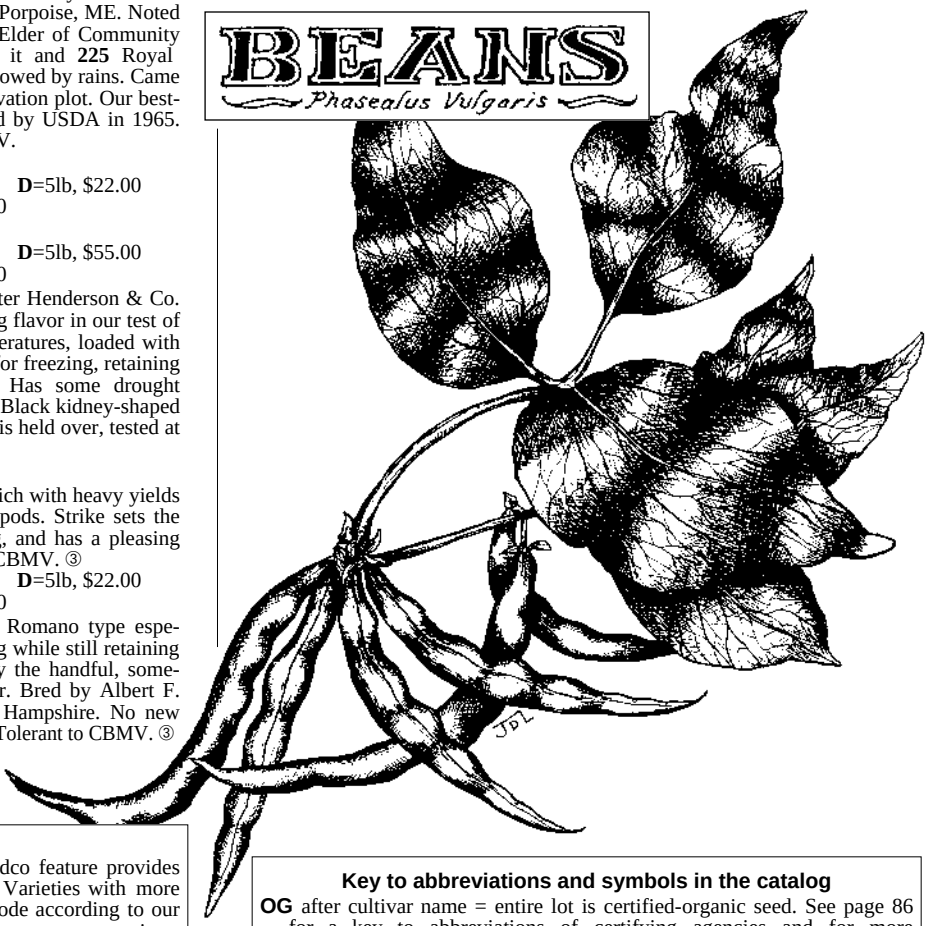
**214GC Greencrop** (53 days) An early flat-podded Romano type especially adapted to the North. Pods can grow up to 8" long while still retaining good quality. "Greencrop allowed us to grab beans by the handful, sometimes seven at a time, all equally sized," relates Elder. Bred by Albert F. Yaeger and Elwyn Meader at the University of New Hampshire. No new crop. Heldover seed tests at 85%. 1957 AAS. White seed. Tolerant to CBMV. ③
**A**=2oz, $1.50 **B**=8oz, $4.20 **C**=1lb, $6.60
**D**=5lb, $22.00 **E**=10lb, $36.00 **K**=25lb, $85.00

**225BO Royal Burgundy OG** (55 days) Straight 5" meaty purple pods turn bright green after two minutes of blanching. Less foliage than Royalty Purple Pod. Grows well even in cold conditions. Light brown seed. Resistant to CBMV, NY 15, PM. ID-certified. ①
**A**=2oz, $2.20 **B**=8oz, $7.00 **C**=1lb, $12.00 **D**=5lb, $55.00
**E**=10lb, $100.00 **K**=25lb, $240.00 **L**=50lb, $450.00

**230JD Jade** (56 days) The original strain, favored by both market and home gardeners, producing great yields of tasty 5–7" straight slender round dark green beans that keep coming until late in the season, long after others have quit. Known for their holding quality, the tender pods with traditional bean flavor retain rich color longer than others, both on the vine and after picking. Jade's strong upright bush habit holds pods above the ground, reducing curling and tip rot. PVP. Resistant to BBS, CBMV, NY15, CTV, tolerant to R. *Caution: white-seeded Jade is a fussy germinator. Be sure your soil temperature is at least 60 °and irrigate during dry spells.* ③
**A**=2oz, $2.30 **B**=8oz, $5.60 **C**=1lb, $10.00 **D**=5lb, $46.00
**E**=10lb, $90.00 **K**=25lb, $210.00 **L**=50lb, $400.00

**238BB Bush Blue Lake 274** (57 days) Introduced in 1961 as a bush variety of the famous Blue Lake pole bean. Long considered the taste standard for home-garden bush beans. Pods average 6", fill slowly with tender plump beans. Very high yields. Not heat tolerant, but excellent for fall crops in areas with very hot summers. White seed. Resistant to CBMV, NY 15. ③
**A**=2oz, $1.50 **B**=8oz, $4.20 **C**=1lb, $6.60 **D**=5lb, $22.00
**E**=10lb, $36.00 **K**=25lb, $80.00 **L**=50lb, $150.00

**246RM Roma II** (59 days) True flat bush Romano offers heavy yields of fleshy medium-green 5" pods that are slow to develop seeds. White seed. A small percentage will develop runners. Resistant to CBMV, NY15. ⑥
**A**=2oz, $2.00 **B**=8oz, $5.40 **C**=1lb, $9.00 **D**=5lb, $40.00
**E**=10lb, $70.00 **K**=25lb, $160.00 **L**=50lb, $300.00




**About our Supplier Codes**

Know where your seed comes from! This unique Fedco feature provides information about the source(s) of each seed variety. Varieties with more than one supplier may have two or more codes. We code according to our best information at press time. When seed is short we must sometimes change suppliers later in the season. With notable exceptions, we generally choose varieties based on their merits rather than on our supplier preferences. We do not offer genetically engineered varieties, although we purchase from corporations engaged in genetic engineering. Use the supplier codes to help you make your own choices about whom you are supporting and which varieties are best for your garden or farm.

① Small seed farmers including Fedco staff.
② Family-owned companies or cooperatives, domestic and foreign.
③ Domestic and foreign corporations not part of a larger conglomerate.
④ Multinationals not to our knowledge engaged in genetic engineering.
⑤ Multinationals who are engaged in genetic engineering.
⑥ Manufacturers of neonicotinoids: Bayer and Syngenta.

**Key to abbreviations and symbols in the catalog**

**OG** after cultivar name = entire lot is certified-organic seed. See page 86 for a key to abbreviations of certifying agencies and for more information about the OG and ECO designations.
**ECO** after cultivar name = entire lot is sustainably grown seed.
**BD** after cultivar name = entire lot is biodynamically grown seed.
**PVP** = Plant Variety Protected. Unauthorized propagation of the seed is prohibited. The use of PVP in the catalog is for informational purposes only and in no way constitutes an endorsement by Fedco of plant patenting.
**AAS** = All-America Selection.
❄ indicates cold-hardy through at least part of the Maine winter. See list on page 46 for more information.
☙ = a variety introduced by Fedco followed by the year first offered.
Ω = a variety grown and supplied by the plant breeder. More on page 39.
✿ = a variety especially attractive to pollinators.

## BUSH HARICOTS VERTS

**Half oz packet sows 10-16 ft; 1 lb, 320-500 ft.** Seeds are smaller than those of regular beans; **Avg 70-125 seeds/half oz packet.** *Haricot vert* is French for green bean. This type has fancier quality than American beans and commands a premium in markets. For optimal flavor and texture, picking interval should be 48 hours or less when pods are still stringless and thinner than a pencil.

**247PO Montpellier OG** (57 days) Finally we have a crop for this very refined haricot vert for home gardens developed by Petoseed, later bought by Seminis/Monsanto. We liked it so much that when they dropped it, we commissioned our own production. Bears straight dark green 6" pods on upright bush plants. Our trialer said, "excellent raw with minimal bitterness." Exquisitely tender with a delicate flavor. Pods tend to be almost camouflaged and can be hard to pick. Small white seed. Resists CBMV and ANTH. MOFGA-certified. ①

**A**=1/2oz, $1.60 **B**=2oz, $3.20 **C**=8oz, $7.60 **D**=1lb, $12.00 **E**=5lb, $55.00

**248MS Masai** (58 days) Love the quality of French filet beans, but hate to have to pick them so often? One of a new class of haricot verts that holds longer without fattening, Masai allows a short vacation from the garden. Elaine Carlson calls them "one of the wonders of the world—I cannot believe how long these green crunchy slivers stand on the little plants." But market grower Holli Cederholm found she had to pick them every other day to achieve the tender gourmet restaurant quality her markets demanded. Otherwise the pods got too tough for her. Unlike classic haricot verts, Masai grows only 5" long, the slender pods juicy and crisp with a pleasing beany flavor. Although much more compact than Provider, each plant cranks out dozens of the diminutive beans. A space saver since only a few plants will suffice for a small family. ~170 seeds/oz ⑥

**A**=1/2oz, $1.60 **B**=2oz, $4.00 **C**=8oz, $11.00 **D**=1lb, $20.00 **E**=5lb, $80.00

**249MO Maxibel OG** (61 days) A heavy producer of uniform dark green fancy 6–8" pods of exceptional length, ramrod straightness and superb taste. For maximum tenderness and most succulent flavor pick early and often. Normal-sized bushes are not as compact as Masai. A gourmet market specialty. Speckled brown seed. White flowers. Resists ANTH and CBMV. ID-certified. ~140 seeds/oz. ①

**A**=1/2oz, $1.60 **B**=2oz, $3.20 **C**=8oz, $7.60 **D**=1lb, $14.00 **E**=5lb, $60.00 **K**=10lb, $110.00

**251CC Concador Yellow** (62 days) Pick your own basin of gold! Concador, the yellow-bean lover's answer to **248** Masai, fills the need for multiple colors in this fast-growing niche. Like Masai, the uniform 4 1/2–5" pods stay slender for a long time on the vine and will keep producing copiously if tended. Medium-sized upright plants larger than Masai. Resistant to CBMV, ANTH and HB. ~250 seeds/oz. ③

**A**=1/2oz, $2.30 **B**=1oz, $4.20 **C**=4oz, $15.00

**254VL Velour** (62 days) Velvety? That may be stretching it to describe the texture of even as elegant a bean as Velour. However Velour is undeniably striking and offers a great opportunity to add the color purple to your filet bean repertoire. Built very much along the lines of Masai and Concador, Velour delivers ample harvests of slender straight bright 4–5" purple pods that turn green when blanched. Upright medium-sized plants. All seed is held over; tests at 90%. Resistant to CBMV and HB. ~190 seeds/oz. ⑤

**A**=1/2oz, $2.20 **B**=2oz, $4.20 **C**=8oz, $15.00

## Fedco Supports MOFGA

We have made a five-year pledge of at least $50,000 to MOFGA (the Maine Organic Farmers and Gardeners Association). You help us meet that commitment:

- When you use the line on your order form to **make an optional donation to MOFGA.**
- When you **donate all or part of your refund** we match your refund donation dollar for dollar.
- If you join MOFGA or are already a member, we **donate 1% of your Seeds-division or OGS purchase to MOFGA.**

Our close cooperation with MOFGA reflects our longtime advocacy for sustainable and organic agriculture.

## BUSH WAX BEANS

Wax beans were developed in the 1830s.

**262GO Golden Rocky OG** (54 days) Heirloom from France, also known as *Beurre de Rocquencourt*, noteworthy for its slender juicy pods that melt in your mouth, light and not beany. Germinates well in cool wet conditions and retains vigor even under night temperatures in the 40s and 50s. Stands out as a vigorous and consistent cropper when many others falter in excessive rainfall and insufficient heat. ID-certified. ①

**A**=2oz, $2.20 **B**=8oz, $7.00 **C**=1lb, $12.00 **D**=5lb, $55.00 **E**=10lb, $100.00 **K**=25lb, $240.00 **L**=50lb, $450.00

**265NO Indy Gold OG** (54 days) Back by popular demand. Though we have to pay a royalty to offer it and it is therefore pricey, our customers are impressed that it produces such high quality pods and requires only one planting. "The best yellow bean ever; it outproduced Provider. We canned enough for several years, gave away tons to friends and finally decided to euthanize them by withholding water in drought. They would not die! Eventually it rained toward fall and they came back," testified Penny Kujawinski of Harrisburg, MO. Tender yellow pods with attractive green tips average 5". Heavy-yielding large plants not slowed even in cold wet summers. Beans, held high off the ground, are easy to pick and hold well. Also makes a delicious shell bean. White-seeded. Tolerates CBMV. PVP. ID-certified. ①

**A**=2oz, $2.20 **B**=8oz, $7.00 **C**=1lb, $12.00 **D**=5lb, $55.00 **E**=10lb, $100.00 **K**=25lb, $240.00 **L**=50lb, $450.00

**270GB Golden Butterwax** (56 days) A white-seeded wax bean impressive for its rich yellow color and straight pods. We rate Butterwax as less juicy than Golden Rocky or Rocdor, but beanier. Resistant to CBMV, NY15, tolerant to ozone damage. ③

**A**=2oz, $1.50 **B**=8oz, $4.20 **C**=1lb, $6.60 **D**=5lb, $22.00 **E**=10lb, $36.00 **K**=25lb, $80.00 **L**=50lb, $150.00

**277DO Dragon Langerie OG** (57 days) Also known as Dragon's Tongue. Tasty attractive 19th-century heirloom hails from the Netherlands. Its compact stocky bushes bear abundant purple-violet flowers followed by flat 6" creamy yellow pods mottled with purple tiger stripes. Sunlight helps the colors become vivid, so plant farther apart in the row than normal bean spacing so interior sets develop good color. Crisp, stringless and amazingly juicy when eaten fresh. Cook or market promptly after picking; turns rubbery and loses snap when stored. Not recommended for freezing. Loses purple coloration in cooking. Seed purplish brown with blue stripes. ID-certified. ①

**A**=2oz, $2.20 **B**=8oz, $7.00 **C**=1lb, $12.00 **D**=5lb, $55.00 **E**=10lb, $100.00 **K**=25lb, $240.00

## POLE BEANS

**Half oz packet sows 5 poles, 2 oz sows 20 poles, 6 per pole.** One customer says, "Many people—even gardeners and cooks—have no idea how much better tasting pole beans are. Most bush beans are cardboard by comparison."

**Culture:** We've used four-legged tipis for staking for years. Gloria Seigars of New Sweden, ME, employs tall limber ash saplings that can be bent double without breaking. "Wired together, several of them make a nifty arbor and grand entrance to the vegetable garden." Pole beans and **318** Scarlet Runner climb them with enthusiasm. Will Bonsall suggests letting them climb sunflower stalks (give the sunflowers a 2-week head start). Tom Stearns uses a long sturdy fence (the most space-efficient way). All pole beans have strings that won't be annoying if you pick early and often. Frequent clean picking keeps your vines vigorous and productive. Pick and compost those fat ones hanging low that got away; if you leave them on the vine your plants will stop producing, satisfied they've fulfilled their reproductive mission.

**Northeaster** (55 days) Consult our website **fedcoseeds.com** for availability, prices and description.

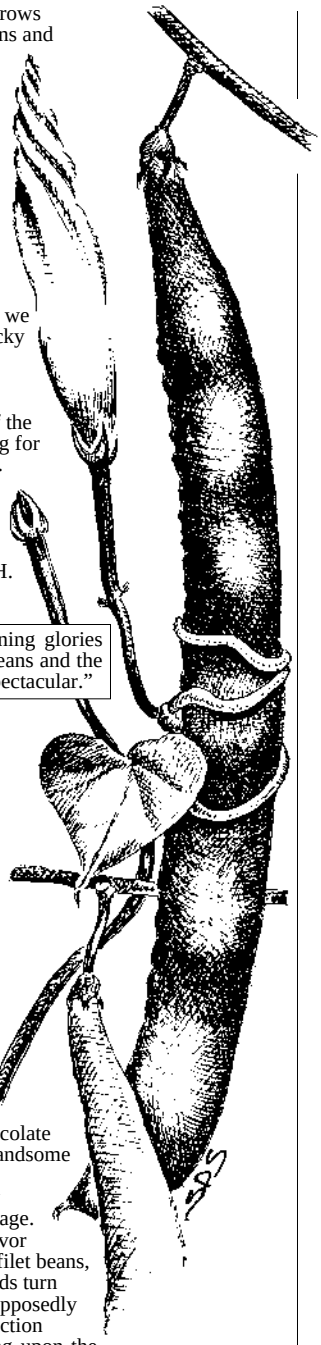
**281GG Golden Gate** (59 days) The Golden Gate Bridge, opened May 28, 1937, spans three miles. The Golden Gate bean, debuting in the 2013 Territorial Seed catalog, spans ten inches with best eating quality at 6–8". The Golden Gate Bridge boasts 746' towers. The vigorous Golden Gate bean is capable of growing much taller than trialer Donna Dyrek and needs a high stout stake. The Golden Gate Bridge accommodates 110,000 vehicles per day. The Golden Gate bean will produce many handfuls of large flattened sunny yellow beans, but considerably fewer than 110,000. The Golden Gate Bridge takes in $100 million in tolls per year. If you bring the tender sweet and tasty Romano beans of that name to market, you will sell plenty of them, but well short of $100 million worth per season. Arguably the most magnificent bridge in the world, Golden Gate is also the most magnificent pole wax bean we've ever found in our trials. Good from here to San Francisco, nutty, sweet, tender and crunchy with a buttery texture. ②

**A**=1/2oz, $2.40 **B**=2oz, $5.50 **C**=8oz, $16.00 **D**=1lb, $28.00

**Fortex OG** (60 days) Consult our website **fedcoseeds.com** for availability, prices and description.

**283GP German** (64 days) Sam Birch, who grows hundreds of varieties each year, knows his beans and really likes this one that he got from his neighbor Phil Wentzel. These white seeds, though surprisingly small, grow prolific wide flat long pods. Even at a foot long the beans remain tender. Enjoy as green beans or allow to mature into shellies. These vigorous climbers dwarf Sam by a full two feet. *This is the last year we will carry. Seed in short supply; order early.* ☙2007 ①

**A**=1/2oz, $2.10



**285KW Kentucky Wonder** (68 days) Also known as Old Homestead. Back in 1921, Stark Bros. opined, "Of all the climbing kinds, we do not believe there is a better one than Kentucky Wonder; it is an old variety with solid meaty pods, 7–9" long…and when cooked no bean is better. It is enormously productive, the pods hanging in great clusters from top to bottom of the pole." The nutty flavor makes them outstanding for freezing. As the beans mature, the pods flatten. Pick regularly to maintain quality and production, as they get tough once the beans enlarge. A favorite since the mid-1800s, Wonder was given its present name by the eminent Marblehead, MA, seedsman James J.H. Gregory in 1877. Brown seeds. ③

**A**=2oz, $1.60
**B**=8oz, $4.50
**C**=1lb, $7.50
**D**=5lb, $24.00
**E**=10lb, $38.00
**K**=25lb, $85.00
**L**=50lb, $160.00

"I planted morning glories with my pole beans and the results were spectacular."

**292RS Rattlesnake** (70 days) "I've always been a Kentucky Wonder girl but got Rattlesnake for a substitute and am I ever glad. These beans are delicious fresh and frozen—beautiful, too," avers Catherine Hall of Ellsworth, ME. Called Preacher Bean in parts of the South, Rattlesnake produces a good harvest of round 6–7" pods with purple streakings said to resemble the markings of a rattlesnake. Tan seed with dark stripes. ③

**A**=2oz, $1.60
**B**=8oz, $4.50
**C**=1lb, $8.00
**D**=5lb, $24.00
**E**=10lb, $38.00
**K**=25lb, $85.00

**295BC Blue Coco ECO** (72 days snap) A pre-1775 French heirloom named for its chocolate seeds and bluish-purple pods, Coco makes a handsome plant, its green leaves tinged with purple. Can serve as a snap, shell or dry bean. Slightly curved pods with tender strings flatten as they age. Very mild and sweet with a pleasing meaty flavor and nutty aftertaste. Can be harvested at 3" as filet beans, remain tender to 5" without getting stringy. Pods turn green when blanched. Freezes well. Coco is supposedly tolerant of both heat and drought, but its production slacked off during hot dry weather, recovering upon the return of rain and more temperate nights. Short crop. ①

**A**=1/2oz, $2.00 **B**=2oz, $4.50 **C**=8oz, $12.00
**D**=1lb, $20.00 **E**=5lb, $80.00

**297MP Multicolored Pole Bean Mix** (60-72 days) Multiculturalism in the bean patch. Pick a pole of polychromatic pods! We combine green, yellow, purple and striped varieties of staggered maturity into one packet. Great for those wishing to try all our varieties but with room for only one or two poles, and for CSAs who want to put a whole rainbow into each box. Varieties, our choice, will vary from year to year according to availability. "Your pole bean mix last year was outstanding," said Laura McKenzie of Springville, AL. ③

**A**=1/2oz, $1.60 **B**=2oz, $3.60 **C**=8oz, $9.00 **D**=1lb, $16.00

**All prices are not created equal and not all is what it seems to be:** unlike most seed companies, we do not charge shipping on orders over $30. When comparing prices also be sure to factor in our generous discounts.

## FAVA BEANS *Vicia faba*

**~35 seeds/pkt, 280 per lb.** Also called broad beans and horse beans. Mainstays in many cultures from ancient Rome to modern-day Mexico, Brazil and India. Rich in fiber and iron and highest of all beans in protein.

**Culture:** Well adapted to our cool northeast climate, they tolerate frost, but do not thrive in hot weather. Unlike with other beans, don't wait, sow the large seeds 3–4" apart as soon as the ground can be worked. Vermont market grower Alan LePage sowed his on Apr. 11 this season. Harvest when the light green beans in the 6" glossy pods reach the green shell stage.

**Taste:** Melanie Edwards of Eastport, ME, advises "If you cook them fresh-picked they need to be parboiled only 1–2 minutes in lightly salted water. If they have been in the refrigerator a while, give them a minute more. Utterly delicious when a small bit of the cooking water is eaten with the bean. Gently break open the seed casing with your front teeth and squeeze out the inside. Shelling your own as you eat them is similar to the difference between eating corn on the cob and whole kernel corn. No comparison."

**Windsor** (75 days) Bush type. The classic heirloom variety, listed by Fearing Burr in *Field and Vegetable Gardens of America* in 1863. We sell more than half a ton of these each year. Brown seed.

**298WI Windsor** ③

**A**=2oz, $1.60 **B**=8oz, $4.50 **C**=1lb, $7.50 **D**=5lb, $26.00
**E**=10lb, $45.00 **K**=25lb, $85.00 **L**=50lb, $160.00

**299WO Windsor OG** CCOF-certified. ③

**A**=2oz, $2.80 **B**=8oz, $8.50 **C**=1lb, $15.00 **D**=5lb, $60.00
**E**=10lb, $110.00 **K**=25lb, $260.00

## MISCELLANEOUS BEANS

**Black Kabouli Garbanzo OG** (105 days) *Cicer arietinum* No crop. *Not available in 2014.*

**318SR Scarlet Runner** (70 days) *P. coccineus* Climbing beans often grown as ornamentals for their brilliant scarlet blossoms that attract hummingbirds. Need trellises, fences or poles; will grow to 10–12'. Can be eaten either as snap or shell (95 days) beans. Beautifully mottled purple and black seeds. Heirloom variety grown as early as 1750 by colonists and in 1791 by Thomas Jefferson. ~20 seeds/oz. ✿ ③

**A**=1oz, $1.60 **B**=2oz, $2.60
**C**=8oz, $6.60 **D**=1lb, $11.00
**E**=5lb, $45.00

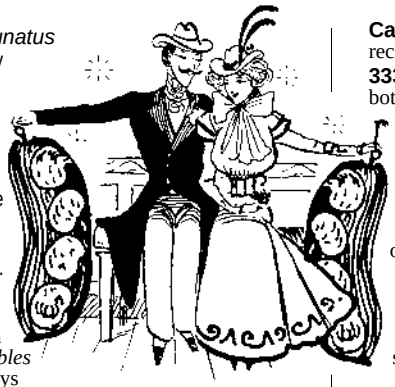
**Mitla Black Tepary** (85 days) *P. acutifolius* Crop failure; *Not available in 2015.*

**322RN Red Noodle Yard Long** (90 days) *Vigna sesquipedalis* A pole or two of these, with their long pencil-thin 14–18" cascading burgundy pods makes a stunning garden entrance that draws people in and excites curious inquiries. Not the earliest of Yard Long beans, but surely the most spectacular. An indifferent performer in chilly Central Maine, Noodle preferred the warmer day and night temperatures of hill country Massachusetts and does even better a zone or two south. Slow to produce, first ripening for me in MA Sept. 5, but once underway never looked back. Loves heat and moisture. Keep it picked to sustain production. This intriguing Asian specialty has found its cachet. Its strong unique indescribable flavor is brought out best by dry-frying in a hot wok with peanut oil, garlic and tamari. Stringless and most tender when young and thin. Must be trellised. ~ 200 seeds/oz. ③

**A**=1/2oz, $2.30
**B**=2oz, $8.50
**C**=4oz, $16.00
**D**=1lb, $55.00
**E**=5lb, $260.00

"Great prices, great selection, and a quirky catalog in a cookie-cutter world."
–S. Coe, Heath, MA

## LIMA BEANS *Phaseolus lunatus*



**~ 60 seeds/oz.** Originally from Peru where they were cultivated 6,000 years ago.

**Culture:** Lima beans require more heat than bush beans and are indifferent performers in cold wet summers. Harvest when the beans bulge inside their pods.

Minimum soil temperature 60˚, optimal range 70-85˚, optimal temperature 85˚, emergence takes 18 days at 68˚, only 7 days at 77˚. 80% normal seedlings at 77˚, but 88% normal at 86˚.

**323JW Jackson Wonder** (103 days) U.P. Hedrick in 1931 in *The Vegetables of New York* called it "the hardiest of all bush limas, very productive." In his *100 Vegetables and Where They Came From*, William Woys Weaver highly praised Jackson Wonder for baby pods that are so tender they can be cooked like snow peas and mature beans so handsome they make a stunning bead necklace. Introduced in 1888, Atlanta farmer Thomas Jackson's drought-tolerant variety created a sensation for its productivity, even though it stands only 18" tall. "We love the flavor and ease of growing Jackson Wonder," concludes Twin Oaks' Pam Dawling. See her book *Sustainable Market Farming*, **9855** in our books section. Wonder features about 3 seeds per curved pod, grey in the shell stage and drying to buff with lovely purple and black mottling, as succulent as they are decorative. Its sweet-smelling white flowers attract butterflies. ✿ ③

**A**=2oz, $1.50 **B**=8oz, $4.20 **C**=1lb, $7.00 **D**=5lb, $22.00 **E**=10lb, $36.00

**325KG King of the Garden Pole** (106 days) Also known as Henderson's Leviathan, for those with a season long enough to grow pole limas. Developed from a cross between Large White and Dreer by Frank S. Platt in 1883. Platt selected five- and six-seeded Large White pods so that King's long 8" pods dependably produce at least 4 large creamy-white seeds of splendid quality over an extended harvest period. Gregory called them the standard late pole lima and advised in his 1917 catalog that the plants are extremely vigorous so that "no more than two should be allowed to grow to a pole." Indeed, the vines can grow 10' high on fertile ground! *Caution: Not adapted to northern areas.* ③

**A**=2oz, $1.60 **B**=8oz, $4.50 **C**=1lb, $7.50 **D**=5lb, $26.00 **E**=10lb, $45.00

## SHELL AND DRY BEANS *P. vulgaris*

**2 oz packet sows 25 ft; 1 lb, 200 ft. All bush beans except where noted.**

**Culture:** In conditions of high nitrogen fertility some bush beans may develop vines in moist hot weather. Harvest shell beans when the beans are plump inside pods. For dry beans allow pods to dry on the vine until pressing the beans with your fingernail leaves no indentation. If heavy rains threaten just before maturity, pull plants by the roots and hang them in a dry place to finish or pick pods, shell and finish drying indoors. 2011 and 2013 were difficult years for drying down beans, 2012 and 2014 better.

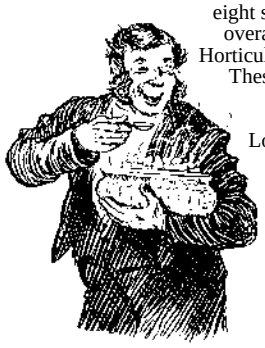
**326DW Taylor Dwarf Horticultural** (68 days shell) Also known as Speckled Bays, this pre-1800 heirloom bush shell bean produces cream-colored pods early. Pods are ready to shell when carmine-red splashes appear. Shell right after picking, boil until tender (30–45 minutes) and mix with olive oil, chopped garlic and parsley for a late summer treat. Buff seed with red stripes. All seed is held over; tested at 87%. ③

**A**=2oz, $1.60 **B**=8oz, $4.00 **C**=1lb, $7.00 **D**=5lb, $22.00 **E**=10lb, $36.00 **K**=25lb, $80.00 **L**=50lb, $150.00

**328VC Vermont Cranberry** (70 days shell, 95 days dry) A New England tradition since before 1800. Pods contain 5 to 6 speckled cranberry-colored shell beans. Reliable, hardy and easy to shell. Seed grown in Maine. Occasional tendency to viney habit. ①

**A**=2oz, $1.90 **B**=8oz, $5.60 **C**=1lb, $9.20 **D**=5lb, $38.00 **E**=10lb, $68.00

**331CO Silver Cloud Cannellini OG** (70 days shell, 90 days dry) An improved Cannellini with an upright bush habit bred by Washington State University. Our trialer says Silver Cloud compares to a regular cannellini only in that they both have white seeds. Green with bright pink streaking, Silver Cloud's short fat 5–6" pods contain five plump seeds instead of the eight skinny ones found in most cannellini pods. The overall appearance is more like that of a **326** Taylor Horticultural bean than of a typical white kidney bean. These make amazingly early and absolutely superb shell beans, "incredibly good, especially in a salad with bleu cheese dressing," says Sylvia Loomer of Aberdeen, WA. "Thrived even in this cool rainy maritime climate…fully exposed to the cold summer wind blowing off the ocean." When dried and cooked, its smooth meaty texture and dense nutty flavor are prized in minestrone and other soups and stews. Resists CBMV, CTV, tolerates R. ID-certified. ①



**A**=2oz, $2.10 **B**=8oz, $6.00 **C**=1lb, $11.00 **D**=5lb, $50.00

**Cannellini** (80 days shell, 100 days dry) No longer available. We recommend **331 Silver Cloud** as much earlier and better.

**333LL Limelight** (60 days shell, 85 days dry) A versatile variety, excellent both as a shell and a dry bean. Compact plants set light green to white seeds similar in shape, color and taste to baby limas, except much easier to grow in our climate and sweeter with a buttery texture. Developed in Alberta, Canada. ① **BACK!**

**A**=2oz, $2.00 **B**=8oz, $7.00

**334BC Black Coco** (60 days shell, 85 days dry) A triple-treat bean that is a joy to grow because it is so easy. 2' plants set abundant 5" round pods of plump shiny black seeds that resist shattering in the garden, yet are easy to shell. Coco can be harvested as a green bean or ten days later as a good shell bean, but really comes into its own as a refried or soup bean. Cooks quickly with a delicious aroma that promises a hearty robust soup. Supplier is discontinuing. *This is the last year we will carry.* Held over seed tests at 88%. ③

**A**=2oz, $1.60 **B**=8oz, $4.50 **C**=1lb, $7.50

**Tiger Eye OG** (65 days shell, 85 days dry) Crop failure. *Regret not available in 2015.*

**336KE King of the Early** (85 days) Beautiful mottled red baking bean. Seed propagated from a sample sent to us years ago by seed-saving customer Linwood Ware. King's ability to ripen early, its capacity to swell enormously when soaked, its utter dependability through hot summers and cool, and its robust flavor won our hearts. We've found King easy to grow and heavy yielding year after year. Seed grown in Maine. ①

**A**=2oz, $1.70 **B**=8oz, $5.00 **C**=1lb, $8.50 **D**=5lb, $35.00 **E**=10lb, $55.00 **K**=25lb, $105.00

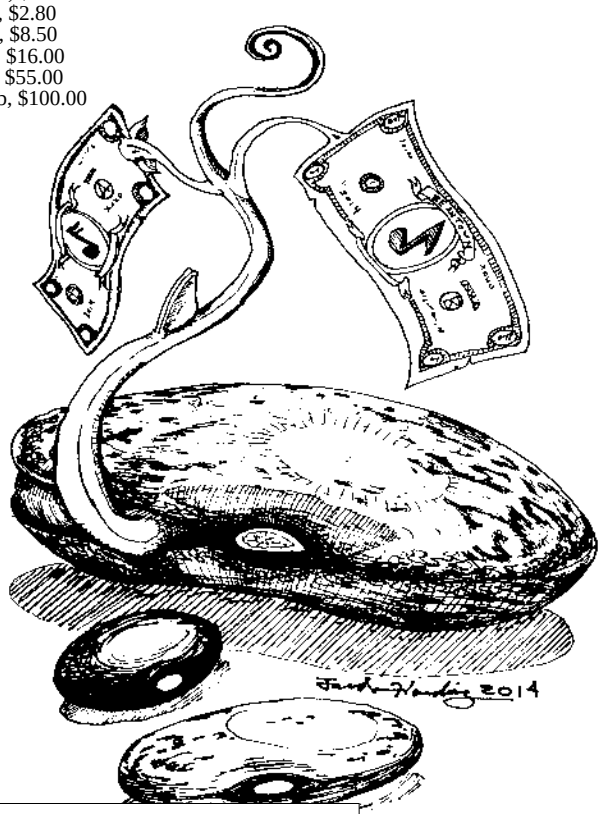
**Ireland Creek Annie OG** (85 days dry) Crop failure; *not available in 2015.*

**338MF Marfax** (86 days) Heirloom resembling Swedish Brown Bean, but earlier and higher yielding. Richly flavored brown baking bean very well adapted to our cool climate. Golden-tan seed produced in Maine. Held over seed tests at 90%. ①

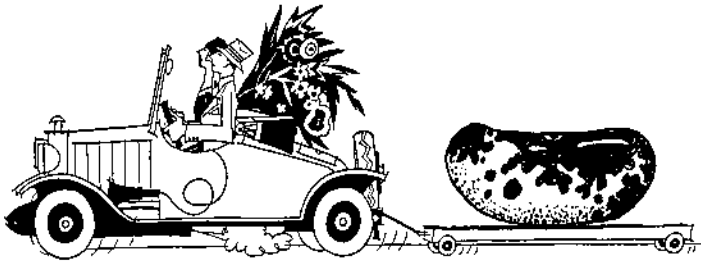
**A**=2oz, $1.70 **B**=8oz, $5.00 **C**=1lb, $8.50 **D**=5lb, $35.00 **E**=10lb, $55.00 **K**=25lb, $105.00 **L**=50lb, $190.00

**340HO Hutterite OG** (88 days) After enduring centuries of persecution in Europe, the Hutterites, a communal Anabaptist sect, came to South Dakota from the Ukraine in the 1870s. Although there is no real evidence to back the claim, this bean has been credited to their cultural heritage. Instead it may be a Russian selection of the China Yellow bean that has been grown by Americans and Canadians since the 1820s. The greenish-tan plump beans with a charcoal ring around the hilum cook into delicious creamy chowder in a little under an hour. 2–3' bushes are good yielders. Listed on Slow Food's Ark of Taste. ICS -certified. ①

**A**=½oz, $1.70
**B**=2oz, $2.80
**C**=8oz, $8.50
**D**=1lb, $16.00
**E**=5lb, $55.00
**K**=10lb, $100.00



"When my glossy catalogs get wet, they are ruined. Your catalog just gets wrinkly!"
–Diana Oakley, Cherry Valley, NY



**344JO Jacob's Cattle OG** (88 days) Popular New England heirloom may have originated with Native Americans in the Southwest. Derives its name from the biblical story of Jacob and the spotted cattle. Its dark red speckles on white background are said to look like the cattle's markings. If harvested earlier, the kidney-shaped beans make superb shellies. MOFGA-certified. ①
**A**=2oz, $2.20 **B**=8oz, $7.00 **C**=1lb, $12.50 **D**=5lb, $50.00 **E**=10lb, $90.00

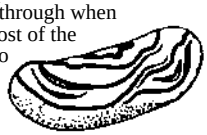
**350SD Soldier** (89 days) Unlike our soldiers in most faraway wars, these Soldiers have a clear winnable mission within a defined timetable: to reproduce themselves every year for our mutual benefit! Large drought-tolerant white kidney beans with red-brown soldier-like figures on the eyes. A New England favorite for generations. Seed grown in Maine. ①
**A**=2oz, $1.70 **B**=8oz, $5.00 **C**=1lb, $7.50 **D**=5lb, $35.00 **E**=10lb, $55.00 **K**=25lb, $105.00 **L**=50lb, $190.00

**353KE Kenearly** (89 days) Yellow Eye is one of the signature varieties of Maine bean hole suppers. Kenearly, a selection of Yellow Eye, was developed at the Kentville, Nova Scotia, research station. Very similar to the Maine Yellow Eye strain we formerly sold, but with slightly larger eye and more uniform maturity. Plump oval medium-sized beans, cream with yellow eye. Seed grown in Maine. ①
**A**=2oz, $1.70 **B**=8oz, $5.00 **C**=1lb, $7.50 **D**=5lb, $35.00 **E**=10lb, $55.00

**356CP Calypso** (90 days) Also called Orca or Yin-Yang bean. A dramatic find at the 1992 Common Ground Country Fair Exhibition Hall. Its stark markings are uncannily similar to the Chinese symbol. This black and white dry bean even includes a contrasting dot. Though not as heavy a yielder as **336** King of the Early, Calypso dependably produces 4–5 beans per pod, with a texture similar to Yellow Eye. Doubles in size when cooked. Seed grown in Maine. ①

**A**=2oz, $1.90 **B**=8oz, $5.60 **C**=1lb, $9.20 **D**=5lb, $38.00 **E**=10lb, $68.00

**366PO Agate Pinto OG** (92 days) Mostly bush pinto with medium-sized mottled beans of rich spicy flavor. Hailed as a breakthrough when introduced in 1982 by Rogers Bros. who dwarfed most of the typical vininess out of pintos and made Agate easy to harvest. An occasional plant (less than 5%) will still send out sprawling runners. Excessive nitrogen can induce additional vining. Quick cooking, the essential bean in Mexican cuisine. ICS-certified. ①



**A**=2oz, $2.30 **B**=8oz, $8.50 **C**=1lb, $16.00 **D**=5lb, $65.00 **E**=10lb, $115.00

**371CO True Red Cranberry Pole OG** (102 days) One of the most difficult seed crops for us to produce, slow-growing and finicky, especially in cool moist seasons. Nevertheless, well worth the effort as it is one of the best baking beans. Garden writer Michele Owen, author of *Grow the Good Life* says, "I love chili and True Red Cranberry beans cook up creamy without disintegrating with a richer flavor than any other red bean I've ever tasted." Inspired by a description of "Red Cranberry" in a 1700s gardening encyclopedia, legendary bean collector John Withee, after an 11-year search, finally obtained it from a Mr. Taylor of Steep Falls, ME. The plump round maroon seeds without streaking look like Thanksgiving cranberries, unlike the speckled oval bush cranberry types. One of our oldest varieties, probably Native American, True Red Cranberry is listed on Slow Food's Ark of Taste. Soak seeds for 24 hours to aid germination. MOFGA-certified. ①
**A**=1oz, $2.00 **B**=2oz, $3.50 **C**=8oz, $9.50 **D**=1lb, $18.00 **E**=5lb, $85.00

**376RK Red Kidney** (102 days) An early-maturing light-red kidney bean developed at Cornell University. A favorite for chili and minestrone. Large beans mature at least a week earlier than similar types. Seed grown in Maine. ①

**A**=2oz, $1.70 **B**=8oz, $5.00 **C**=1lb, $7.50 **D**=5lb, $35.00 **E**=10lb, $55.00 **K**=25lb, $105.00 **L**=50lb, $190.00

**384BT Black Turtle** (102 days) This year we are offering two different strains of Black Turtle, each a refinement of the original first sold in 1832 by Grant M. Thorburn, one of the first U.S. seedsmen. Early and midseason orders will get our customary Midnight strain, an improved upright bush version of the heirloom developed at Cornell. Later orders will receive Eclipse, released by the North Dakota Agricultural Experiment Station in 2004. Purple-flowered Eclipse combines early maturity, erect plant architecture, resistance to lodging and tolerance to SC and is a PVP. Both strains feature small black beans with rich spicy flavor popular for soup. ①
**A**=2oz, $1.90 **B**=8oz, $5.60 **C**=1lb, $9.20 **D**=5lb, $38.00 **E**=10lb, $68.00 **K**=25lb, $135.00

## SOYBEANS *Glycine max*

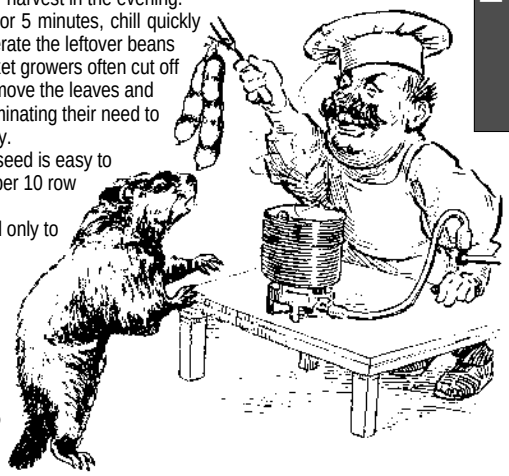
**Half oz packet sows 10 ft; 1 lb, 320 ft. Avg 80 seeds/oz.** Used in China more than 2,200 years ago, then introduced into Japan. The Japanese call them *edamame* (eh-dah-*mah*-may), meaning "bears on branches," and boil and salt them like beer nuts. *Edamame* are rich in vitamins A, C and E, calcium, phosphorus, protein and dietary fiber. Encouraged by its recent popularity surge, breeders are selecting for larger pods with sweeter beans.

**Culture:** *Edamame* are day-length sensitive. Sow around the same time as sweet corn and harvest when most of the pods have expanded but are still green without yellowing. For best flavor harvest in the evening.

Steam or boil the pods for 5 minutes, chill quickly for easy shelling. Refrigerate the leftover beans immediately. Fresh-market growers often cut off plants near the base, remove the leaves and bunch into 1 lb units, eliminating their need to pick each pod individually.

**Saving seed:** Soybean seed is easy to save; expect about 1 lb per 10 row feet.

**Pests:** Young plants 2nd only to brassica seedlings as woodchucks' preferred gourmet treat. Japanese beetles also love them but can be controlled by assiduous hand-picking.



**Beer Friend** (83 days) Consult our web site for availability, prices and description later in the season.

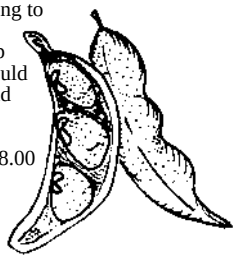
**489FO Shirofumi OG** (90 days) Vigorous thigh-high vines make early concentrated sets of light green pods, averaging two beans per pod. The 10-day picking window is generally from late August through early September. An excellent substitute for limas in short-season areas. Our stock seed came from Tom Vigue, who has done considerable trials and selection work with this crop. Resists ANTH, CBMV. MOFGA-certified. ①
**A**=½oz, $1.90 **B**=2oz, $4.50 **C**=8oz, $11.00 **D**=1lb, $19.00 **E**=5lb, $85.00

**490TK Tankuro** (90 days) In Japan, black-seeded edamame varieties are deemed to have a richer and sweeter flavor than the traditional green or tan-seeded kinds. Tankuro was the winner for productivity and pleasing flavor in our 2010 trial to find the best black-seeded variety. In 2010's exceptional heat, our May 25 planting produced robust 3' plants loaded with pods packed with an average of 2.4 beans each. They ripened beginning Aug. 17, the same day as Shirofumi. In recent less favorable seasons, they would probably have come in around September 1. Harvest promptly when the immature seeds are bulging yet the pods are still dark green, before the plants begin to yellow. Those pods that you miss will dry down, maturing beautiful black pearls that can provide your planting stock for next year. ①
**A**=½oz, $2.00 **B**=2oz, $5.50 **C**=8oz, $11.00 **D**=1lb, $19.00

**491UO Sumo OG** (91 days) We fell in love with its voluminous production of two- and three-beaned yellow-green pods, ripening early September in our 2014 trial. The towering 42" plants hung abundantly with pods and produced 3 heavy pickings over a 10-day window. Its nutty sweet milky goodness out-tasted 4 other contenders and shines best when steamed for 7 minutes, then served warm from the pot. One of my favorite September crops, edamame brings pleasure to my table and a protein my 8-year-old will eat enthusiastically. SC-certified. ① **NEW!**
**A**=½oz, $2.20 **B**=2oz, $6.00 **C**=8oz, $18.00 **D**=1lb, $30.00

**492SO Sayamusume OG** (92 days) Ripens just after Shirofumi with longer, darker pods and sweeter beans. The best-tasting variety in CR's and Roberta's grow-outs with an appealing sweetness if allowed to ripen fully. 2.21 beans per pod in our plot, compared to 1.99 for Shirofumi. Ripens Aug. 25 for us most years; early September in cold seasons. MOFGA-certified. ①
**A**=½oz, $1.60 **B**=2oz, $4.00 **C**=8oz, $10.00 **D**=1lb, $18.00

**493MO Giant Midori OG** (93 days) Ripens right after Sayamusume for our inventory manager Roberta Bailey, but staggers its crop in three pickings, ideal for home gardeners. As its name implies, not compact but instead 3–6" taller than Shirofumi. Also a heavier cropper laden with fat pods each filled with two or three very sweet buttery beans, that "seemed to hold in the field better without yellowing," according to Melinda Fields of Turtle Ledge Farm in Hampton, CT. Despite its lateness, Fields implored us to keep stocking it. My ravenous family of groundhogs would agree! Recommended for both home enjoyment and commercial production as well as for feeding your chucks. SC-certified. ①

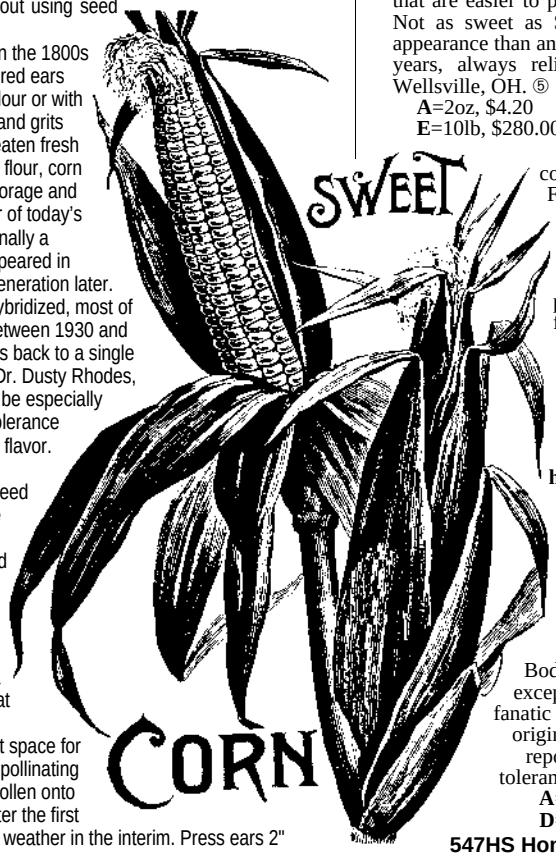


**A**=½oz, $2.20 **B**=2oz, $6.00 **C**=8oz, $18.00 **D**=1lb, $29.00

**Soybean Inoculant** See **799**.

## AMAIZING CORN *Zea mays*

**2 oz packet sows 50 ft, 1 lb sows 400 ft.** Seeds per packet vary, open-pollinated selections average 100 seeds/oz. normal sugary varieties 140 seeds/oz and SE cultivars with shrunken seeds 150-160 seeds/oz. We do not offer supersweets as these are poorly adapted to cold soils without using seed treatments.




**Identification and history:** Seed catalogs in the 1800s featured "Indian Corn," decorative multi-colored ears with soft starchy kernels easily ground into flour or with flinty kernels often used to make corn meal and grits (**680**-**692**); dent corn with indented kernels eaten fresh or roasted in the milk stage or used to make flour, corn meal, grits and cereal; field corn for animal forage and silage (**8056**-**73**); and sugar corn, forerunner of today's sweet corn. Sweet corn seed, probably originally a mutation of flint or dent corn or both, first appeared in commerce in 1828 and became popular a generation later. As sweet corn became the first crop to be hybridized, most of the open-pollinated varieties disappeared between 1930 and 1970. All sugary enhanced sweet corn traces back to a single inbred developed in the 1960s in Illinois by Dr. Dusty Rhodes, ILL677a. Our trialers have found SE corn to be especially suitable to our climate, with good cool-soil tolerance and a near-perfect blend of sugars and corn flavor.

**Culture:** *CAUTION:* Untreated sweet corn seed will not germinate in cold wet soil. Please be patient and wait till soil warms to at least 60˚ before sowing, or start seedlings indoors and transplant at 3–6" before taproots take off. Tender, will not survive frost. Heavy nitrogen requirements. Rows 3' apart, 4 seeds/ft. Thin to 1' apart. When corn is knee-high, side-dress with azomite or alfalfa meal to stimulate growth. Plant in blocks of at least 4 rows to ensure adequate pollination, essential for good tip fill. If you lack sufficient space for enough plants for good pollination, try hand-pollinating by cutting off the tassels and shaking their pollen onto the silks. Sweet corn is ready 18-24 days after the first silks show, the exact time dependent on the weather in the interim. Press ears 2" from the tips to assess kernel fullness. Harvest when the kernels are plump, soft, tender and filled with a milky juice. Most sugary enhanced varieties have an optimal picking window of 5–7 days, but some open-pollinated selections hold only 1–2 days. Minimum soil temperature 50˚, optimal temperature range 60-95˚, optimal temperature 80˚. Emergence takes 22 days at 50˚,12 days at 59˚, 7 days at 68˚, only 4 days at 77˚. 98% normal seedlings at 77˚, only 91% at 86˚.

**Testing:** We randomly test sweet corn seed for transgenic contamination; see below. We cold-test all significant carryover lots of sweet corn seed and post results on our website. Cold-testing mimics spring conditions and assesses suitability for sowing in cool soils.

**Pests:** For additional information see the sidebar on page 12. If you have trouble with crows pulling up seedlings, try Bird-Scaring Balloons (see **8820**) or cover sowings with floating row covers (**9101**). Remove covers at 3–6" to avoid plant abrasion. Apply a few drops of mineral oil to the silks to reduce earworm damage. Interplant with pumpkins to discourage marauding critters. MOFGA's organic crop specialist Eric Sideman uses electric fence, two strands set low to deter small pests and two set high to discourage deer. If, like me, you don't want to electrify, I outwitted my lazy groundhog by surrounding the patch with the chicken wire I use for pea fence. A good dog may be the best critter deterrent of all.

**Diseases:**

| | |
|---|---|
| MDMV | Maize Dwarf Mosaic Virus |
| NCLB | Northern Leaf Blight |
| R | Rust |
| SCLB | Southern Corn Leaf Blight |
| ST | Stewart's Wilt |

### We Test Sweet Corn and Beet Seed for Transgenic Contamination

To help ensure the purity of our seed, we have for the past dozen years employed industry leader Genetic ID to test random samples of our sweet corn lots for the presence of transgenic contamination. Because of the risks posed by production of genetically engineered Roundup Ready beets, we have added beet and chard varieties to our GE testing program.

We remove any lots that test positive for transgenic contamination.

A negative test result, while not *guaranteeing* genetic purity, improves your chances that the seed is uncontaminated. These tests are expensive, but in a time of genetic roulette, they are necessary though not sufficient to assure seed purity. Only if the seed trade takes an adamant position that we will not tolerate GE contamination in our product can we maintain any integrity in our seed supply.

### YELLOW SWEET CORN

**508ST Spring Treat** (71 days) **Sugary enhanced F-1 hybrid**. The choice of early corn cornoisseurs, Spring Treat continues to be by far our most popular sweet corn. It ripens around the time of Sugar Buns, with longer ears that are easier to pick and a rich cornier taste unusual for an early ripener. Not as sweet as Sugar Buns, but better eating quality, ear length and appearance than any other early corn. "Spring Treat has been my favorite for years, always reliable, sweet and corny," declares Janine Welsby of Wellsville, OH. ⑤

**A**=2oz, $4.20 **B**=8oz, $16.50 **C**=1lb, $31.00 **D**=5lb, $150.00 **E**=10lb, $280.00

**516AO Ashworth OG** (72 days) **Open-pollinated**. A composite of early varieties originally developed by the late Fred Ashworth of St. Lawrence Nurseries and marketed by Johnny's Selected Seeds starting in 1978. According to legend, Ashworth originally named his variety "Rat Selected" in honor of the rodents who broke into his seed storage room and alerted him to certain kernels that they preferred. Its short stalks have 6–7" yellow ears with good flavor. Be sure to harvest it at peak milk stage—like much open-pollinated corn it does not hold quality for long in the field. Germinates well in cool soil. ID-certified. ①

**A**=2oz, $2.60 **B**=8oz, $8.80 **C**=1lb, $16.50 **D**=5lb, $78.00 **E**=10lb, $145.00

**524SB Sugar Buns** (74 days) **Sugary enhanced F-1 hybrid** from Crookham with sublime tenderness. About as sweet as our palates like, but not cloying like the supersweets. Sugar Buns does not have as good cold-soil emergence as other early corns. Tolerates NCLB and ST. ②

**A**=2oz, $2.60 **B**=8oz, $10.00 **C**=1lb, $19.00 **D**=5lb, $90.00 **E**=10lb, $170.00

**541BS Bodacious RM** (77 days) **Sugary enhanced F-1 hybrid**. A bold flavor for a bold name, Crookham's Bodacious RM dependably produces outstanding 8" ears with exceptionally sweet corny tender yellow kernels. Avowed corn fanatic Eric Sideman's choice for midseason delight. Same as the original Bodacious but with enhanced disease resistance. Some report it to be a fussy germinator. Resistant to MDMV and R, tolerant to ST. ②

**A**=2oz, $2.60 **B**=8oz, $9.20 **C**=1lb, $18.00 **D**=5lb, $85.00 **E**=10lb, $160.00

**547HS Honey Select** (80 days) **TripleSweet sugary enhanced F-1 hybrid**. For those who like firm flavorful crunchy kernels, here is one honey of a corn that pops in your mouth with a distinctive sweetness that mixes well with its flavor. During the taste test, evaluator Heron Breen said it took all his will power not to gobble every ear from Donna Dyrek's table. He subsequently bartered his extra trial melons to Dyrek for more Honey Select. He and Anne Hallee, coordinator of lot grow-outs, agreed that it tasted "like the best corn of our childhoods." Honey Select produces refined 8" ears with 18–20 rows of subtly colored golden-yellow kernels. Contains 25% supersweet kernels on each ear but need not be isolated from other varieties to retain optimal flavor. ⑥

**A**=2oz, $2.70 **B**=8oz, $10.50 **C**=1lb, $20.00 **D**=5lb, $95.00 **E**=10lb, $175.00

***MEMBER SPECIAL WHILE SUPPLIES LAST***

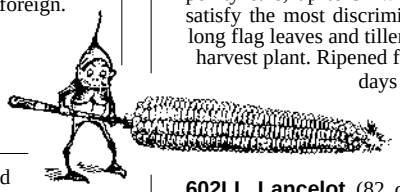
*Offered first come, first served to Fedco Co-op members only!*

See page 89 to join our cooperative.

**558SP Sumptuous** (81 days) **Sugary enhanced homozygous F-1 hybrid** Sumptuous lives up to its lavish name. Caused the most lip smacking in Tom Vigue's three-generation (ages ranging from 16-year-old daughter Kira to his parents, both in their 90s) taste test of six catalog varieties. "Could corn really get any better?" asks Vigue. Delivers a distinctive pleasing grassy flavor. Not overwhelmingly sweet, the tender juicy yellow kernels have just what I, a lover also of **658** Silver Queen, crave. Handsome 20-rowed 8½" ears well-swathed in protective husks also have the looks that market growers want. No new crop because all seed was treated. We have a very small quantity of held over untreated seed testing at 80%. *Order early!* ⑤

**A**=2oz, $2.60 **B**=8oz, $9.20

**Supplier Codes** Know where your seed comes from! Details on page 5.
① Small seed farmers including Fedco staff.
② Family-owned companies or cooperatives, domestic and foreign.
③ Domestic and foreign corporations not part of a larger conglomerate.
④ Multinationals not to our knowledge engaged in genetic engineering.
⑤ Multinationals who are engaged in genetic engineering.
⑥ Manufacturers of neonicotinoids: Bayer and Syngenta.



**Golden Bantam** (85 days) **Open-pollinated**. We have dropped Golden Bantam.

**561NM Incredible RM** (85 days) **Homozygous sugary enhanced F-1 hybrid**. Crookham's superior late-midseason gourmet selection was a full tassel-length ahead of the competition at our trial, where its handsome 8" tip-filled yellow ears were incredibly scrumptious. Incredible is not merely sweet, it really delivers a deep corn taste. Good husk protection and tolerance to ST, enhanced resistance to MDMV, SCLB and R. Poor cold-soil emergence. ②
**A**=2oz, $2.60 **B**=8oz, $9.20 **C**=1lb, $18.00 **D**=5lb, $85.00 **E**=10lb, $155.00

**564KK Kandy Korn** (89 days) **F-1 sugary enhanced hybrid**. Attractive deep purple husks and excellent holding quality make this a real winner at roadside stands. One of the first sugary enhanced varieties, Kandy Korn has stood the test of time and continues to enjoy well-deserved popularity. Tolerant to ST, R. ⑥
**A**=2oz, $2.40 **B**=8oz, $7.50 **C**=1lb, $14.50 **D**=5lb, $70.00 **E**=10lb, $135.00

## BICOLOR SWEET CORN

**574ES Espresso** (70 days) **F-1 hybrid synergistic cross**. Quicker than quicksilver, fleeter than Fleet, springier than Spring Treat, Espresso bursts out of the gate and flashes to the finish. Has become the new favorite early sweet corn of Eric Sideman who says it has better flavor than **508** Spring Treat. He seeds Espresso in the last week of April and transplants to the garden the first week of May using row covers for added warmth and frost protection. Direct seeding without row covers, trialer Donna Dyrek in 2012 enjoyed her first ears on Aug. 18, 3–5 days before her Spring Treat. Though not as long as the midseason corns, these 6" ears retained the good balance between sweet and corny that will satisfy your early corn craving. Tolerates R, ST. ②
**A**=2oz, $2.80 **B**=8oz, $11.00 **C**=1lb, $20.00 **D**=5lb, $95.00 **E**=10lb, $185.00

**577FL Fleet** (72 days) **Homozygous sugary enhanced F-1 hybrid**. In sweet corns, the race is not always to the fleet. Most of the corns first to the finish line don't deliver on flavor. Fleet, an enhanced version of Quickie, is the exception, just a whisker behind Quickie in maturity, but several mouthfuls ahead in eating quality. Along with Quickie, Fleet became the first sweet corn at Shooting Star Farm ever to ripen in July (the 26th) from mid-May transplanting during the hot dry spring of 1999. The 7" bicolor ears fill nicely to the tips with enough succulence to bring your roadside-stand customers back for more. Not as good cold-soil emergence as Quickie, but its superior flavor tips the balance for us. ②
**A**=2oz, $2.60 **B**=8oz, $10.00 **C**=1lb, $19.00 **D**=5lb, $90.00 **E**=10lb, $170.00

**582AM Ambrosia** (75 days) **Homozygous sugary enhanced F-1 hybrid**. Ah! Those heavenly moments of high summer! Out of the pot come steaming ears of bicolor bliss covered with dewdrops of condensation. Into my mouth where the tender corny kernels mix their sweetness into a total sensation of ambrosial delight. Our corn tasters, for all their enjoyment of the process, are a contrary lot, so when they come to consensus, as they did on Ambrosia, we knew we'd found something good. Ambrosia is perfect for a wide range of markets, from fresh home-garden use to long-distance shipping. The 6½' plants show good early vigor. In stressful conditions the tips don't always fill. Tolerates ST. ②
**A**=2oz, $2.60 **B**=8oz, $10.00 **C**=1lb, $19.00 **D**=5lb, $90.00 **E**=10lb, $170.00

**588LO Luscious OG** (77 days) **TripleSweet sugary enhanced F-1 hybrid**. Light up your taste buds with lip-smacking lusty Luscious! If you like your corn sweet, Luscious really lives up to its name. With a good balance of sugars and corn taste, the attractive blunt 8" ears are just what you want in an early midseason bicolor. Easy to grow, too, with good cold-soil emergence and early vigor. A breakthrough for the folks at Mesa Maize, Luscious was their first organically produced variety. Tolerates NCLB, ST, SCLB. CO-certified. ⑤
**A**=2oz, $4.30 **B**=8oz, $17.00 **C**=1lb, $32.00 **D**=5lb, $145.00 **E**=10lb, $270.00 **K**=25lb, $600.00

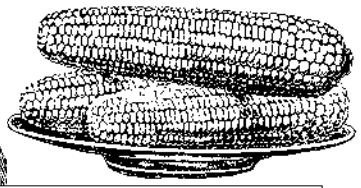
**592SP Sparkler** (78 days) Put a sparkle on your face next August with this handsome high-yielding **F-1 hybrid synergistic** bicolor corn. The long fat pointy ears, up to 9" with up to 18 rows, speak loudly of abundance and satisfy the most discriminating of palates. Plenty of good husk protection, long flag leaves and tillers for market growers who demand a strong easy-to-harvest plant. Ripened for Donna Aug. 23, 2010, from a June 3 sowing, two days ahead of her **541** Bodacious. Tolerates R and ST. ②
**A**=2oz, $2.80 **B**=8oz, $11.00 **C**=1lb, $20.00 **D**=5lb, $95.00 **E**=10lb, $185.00

**602LL Lancelot** (82 days) **Sugary enhanced F-1 hybrid**. Loon Song Farm trialers rated this midseason bicolor with sweet tender kernels as better than Burgundy Delight. It snaps easily, is very drought tolerant, and shows good tip fill. Lancelot is being dropped by our supplier so *it is the last year we will offer*. Heldover seed tests at 88%. *Seed in short supply; order early!* Tolerant to ST. ⑤
**A**=2oz, $3.00 **B**=8oz, $11.50

**604SD Serendipity** (82 days) **Sugary enhanced TripleSweet F-1 hybrid** spiked with **25% supersweet genes** (no, they're not transgenic!) Full-bodied flavor with good balance between sugary and traditional corn taste. Serendipity has the soft-crisp creamy texture and heavenly bouquet to savor again and again. Along with **547** Honey Select, Heron's favorite in the 2011 trials. Isolate from other sweet corn varieties to bring out its best. Market growers will like its extended harvest window. Features 7–8" bicolor ears with good tip fill. Resistant to SCLB. ⑥
**A**=2oz, $2.60 **B**=8oz, $10.00 **C**=1lb, $18.00 **D**=5lb, $85.00 **E**=10lb, $160.00

## MULTICOLOR SWEET CORN

**616HO Painted Hills OG** (80 days) **Open-pollinated**. Alan Kapuler crossed Dave Christensen's Painted Mountain Indian Corn to venerable heirloom **636** Luther Hill. The resulting vigorous 6–7' plants emerge rapidly and tolerate cool soil well. They average two 8" ears with fairly thin tight husks that are hard for earworms to penetrate. Mostly white kernels, but often interspersed with yellows, reds, purples, *multicolors in the fresh eating stage*. Maturity is staggered—good for home gardeners. Passes through the edible milk stage quickly—be alert! *This is the final year we will offer; seed in short supply*. Heldover seed tests at 87%. OT certified.①
**A**=2oz, $4.00 **B**=8oz, $15.50

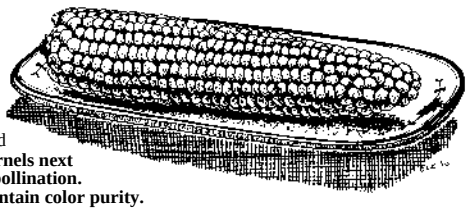


**SWEET CORN SELECTIONS AT A GLANCE**

| variety | item # | days | color | type* | avg height | ear length | # rows |
|---|---|---|---|---|---|---|---|
| Spring Treat | 508 | 71 | yellow | se-se | 72" | 7-8" | 14 |
| Ashworth | 516 | 72 | yellow | op | 60" | 6-7" | 12 |
| Sugar Buns | 524 | 74 | yellow | se-se | 76" | 6-7" | 14 |
| Bodacious RM | 541 | 77 | yellow | se-se | 87" | 8" | 18 |
| Honey Select | 547 | 80 | yellow | se-se-se-sh2 | 84" | 8" | 18-20 |
| Sumptuous | 558 | 81 | yellow | se-se | 76" | 8-9" | 20 |
| Incredible RM | 561 | 85 | yellow | se-se | 90" | 8" | 18 |
| Kandy Korn | 564 | 89 | yellow | se | 102" | 8" | 16 |
| Espresso | 574 | 70 | bicolor | se-su-sh2 | 72" | 6" | 12-16 |
| Fleet | 577 | 72 | bicolor | se-se | 60" | 7" | 14 |
| Ambrosia | 582 | 75 | bicolor | se-se | 78" | 8" | 16 |
| Luscious | 588 | 77 | bicolor | se-se-se | 75" | 8" | 16-18 |
| Sparkler | 592 | 78 | bicolor | se-su-sh2 | 84" | 8-9" | 16-18 |
| Lancelot | 602 | 82 | bicolor | se-se | 84" | 7-8" | 16-18 |
| Serendipity | 604 | 82 | bicolor | se-se-se-sh2 | 75" | 7-8" | 16-18 |
| Painted Hills | 616 | 80 | multicolor | op | 78" | 8" | 7-9 |
| SugarPearl | 622 | 72 | white | se-se | 72" | 8" | 14-16 |
| Spring Snow | 626 | 73 | white | se-se | 66" | 7-8" | 12-16 |
| Luther Hill | 636 | 82 | white | op | 48" | 3-6" | 12 |
| Augusta | 639 | 84 | white | se-se | 78" | 8-9" | 16-18 |
| Tuxana | 652 | 90 | white | op | 108" | 9" | 14-16 |
| Silver Queen | 658 | 96 | white | su | 102" | 8" | 14-16 |

*genetic type
op = open-pollinated
su = normal sugary
se = heterozygous sugary enhanced
se-se = homozygous sugary enhanced
sh2 = supersweet
se-se-se = TripleSweet® sugary enhanced

**If you plant corns of different color kernels next to each other, you will get some cross-pollination. Separate by 8-10 rows' distance to maintain color purity.**



## WHITE SWEET CORN

**622SP SugarPearl** (72 days) **Homozygous sugary enhanced F-1 hybrid**. Elegant 8" sparkling ears with excellent tip fill for such an early maturing variety. Creamy and delectable with lots of depth to go with that sugar. Seedsman Tom Vigue, who has tried more than a few sweet corns over the years, calls it "astonishingly good for such an early corn, easily surpassing **508** Spring Treat which I have grown for many years." Though Donna's 2013 harvest was delayed till Aug. 27 by a horrible cold wet June, most years it would have been ready a full two weeks sooner. Offered last year but did not come so SP is **NEW!** CO-certified. ⑤

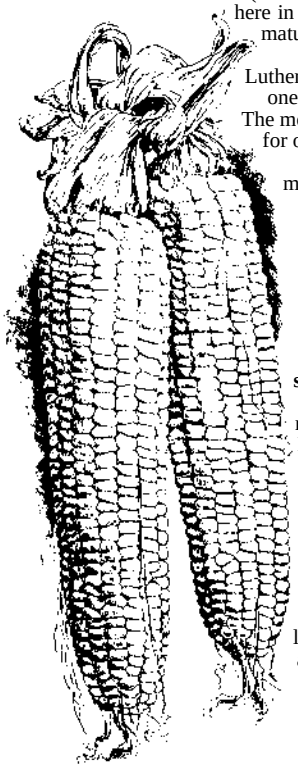
**A**=1oz, $3.80 **B**=4oz, $14.00 **C**=1lb, $45.00

**626SS Spring Snow** (73 days) **Sugary enhanced hybrid**. Last call for Spring Snow; our supplier is dropping it. Snow, an early white sweet corn with a real corny flavor delivers 7½" ears of excellent quality for so early in the season. We hope April 2014 was also last call for spring snow, as we desire no repeat of last year's endless winter. All seed is held over; tests at 80%. *Order early; seed in short supply.* Tolerant to ST, resists lodging. ⑤

**A**=2oz, $2.60 **B**=8oz, $9.20 **C**=1lb, $18.00

**Shasta** (79 days) **F-1 hybrid homozygous sugary enhanced**. We have dropped Shasta for slow sales; *not available in 2015.*

**636LO Luther Hill OG** (82 days) **Open-pollinated**. (82 days) Last offered here in 2010. This is a finicky seed crop to bring to maturity so we are always thrilled on those rare occasions that we can offer it. Developed by Luther Hill of Andover Township, NJ, in 1902, and one of the parents of the venerable Silver Queen. The most popular sweet corn in parts of New Jersey for over 50 years. Sweetest **open-pollinated** corn I've ever tasted, Luther makes multiple 3–6" miniature ears on modest 4' stalks. Because the suckers often yield good ears, each plant, if spaced widely, can make up to four ears. A great way to introduce yourself to sweet corn the way it was before the hybrids took over. OT certified. **BACK!**



**A**=2oz, $3.60 **B**=8oz, $14.00
**C**=1lb, $25.00 **D**=5lb, $110.00

**639GU Augusta** (84 days) **Homozygous sugary enhanced hybrid**. Having supplanted even the venerable Silver Queen in our estimation, Augusta is the one sweet corn variety Eli and I will not be without. Beginning Aug. 29 we enjoyed two weeks of delectable delirium with this empress of white sweet corn that achieves the pearly mean in good eating quality. Our harvest in the warmer 2012 season came three weeks earlier. Intermediate in maturity between SugarPearl and Silver Queen, it bears perfect substantial 8–8½" cylindrical ears with dark green husks that sit low on 6½' stalks for easy harvest and almost always fill to the tips. Woodchucks beat us to all but seven ears in 2013, but we outsmarted them in 2014. ⑤

**A**=2oz, $2.50 **B**=8oz, $8.80
**C**=1lb, $16.50 **D**=5lb, $78.00
**E**=10lb, $145.00

**652TO Tuxana** (90 days) **Open-pollinated.** (F-6 selection from Anasazi Sweet x Tuxedo) Oregon farmer and breeder Jonathan Spero has spent six diligent years selecting OP sweet corn lines that rival many modern hybrids for depth of flavor, sweetness and tenderness. Tuxedo was a yellow sugary-enhanced F-1 hybrid that we regarded highly and offered from 1995 to 2012 before it disappeared from production. Tuxana is still a work in progress, but clearly Spero is on the right track. Its bright white kernels and 9" ears are so beautiful, I was sure we had accidentally included hybrid Silver Queen in our extensive 2014 OP corn trial. With Tuxana sporting 14 to 16 rows and great tip fill, can you blame me? When it came to eating, tender mouthfuls burst with sweetness nearing the best hybrids. As the harvest of midseason varieties tapers off, 90-day Tuxana begins. Now I think all late-summer corn feasts will be formal affairs with Tux required. OT-certified. Ω ① **NEW!**

**A**=2oz, $4.10 **B**=8oz, $15.50

**658SQ Silver Queen** (96 days) **F-1 hybrid**. Like Sugar & Gold to the previous generation, Silver Queen has become so classic as to constitute a generic brand. Most farmers claiming to offer it have long since switched to more modern hybrids. However, we know some who still prefer to grow the real Queen, and that's what we offer. Queen has long set the standard for late-maturing sweet corn with large handsome ears, replete with glossy white creamy sweet kernels that fill to the very tips. I use it as a succession to Augusta. It came in on Aug. 31, 2012, and blessed our first week of September with its delicious lovely ears. In colder climates it sneaks in just ahead of those first killing frosts late in September. Other varieties may be sweeter, but I can't think of a better way to end the corn season. *Caution: said to germinate poorly in cold soil, though we have received few complaints.* Tolerant to NCLB, SCLB, ST. ⑥

**A**=2oz, $2.50 **B**=8oz, $8.80 **C**=1lb, $16.50 **D**=5lb, $78.00
**E**=10lb, $145.00

## POPCORN

**Seed counts vary widely among varieties.** Market grower Jason Kafka says that popcorn is a wonderful novelty for CSA shares.

**663JH Japanese Hulless** (72 days) **Open-pollinated**. (72 days) Use this variety to raise miniature corn for Chinese cuisine. Harvest the fingerlike baby ears around five days after silks appear. They are delicious in hors d'oeuvres and stir-fries and make excellent pickles. Or allow to grow to full size for popcorn in 110 days from sowing. The 5' plants each bear three to six 4" ears with white kernels. ② **BACK!**

**A**=2oz, $1.80 **B**=8oz, $6.50 **C**=1lb, $12.00 **D**=5lb, $55.00
**E**=10lb, $98.00

**671RW Robust 98114W White** (98 days) **F-1 hybrid**. Taller, a bit later, higher yielding with larger kernels and ears, and greater ease of popping than the old Robust 21-82W, this midseason white hull-less popcorn has great eating quality—crisp and tender, light and flaky. The 6' plants have the stalk strength to survive September storms intact. "Nice long thin ears," says Kafka. ②

**A**=2oz, $2.00 **B**=8oz, $7.50 **C**=1lb, $13.50 **D**=5lb, $64.00
**E**=10lb, $122.00

**675DO Dakota Black OG** (100 days) **Open-pollinated**. Outstanding in our observation plots two years in a row. Compact plants with one ear each. Our tasters rated the popcorn "Oh, so scrumptious." In addition to their popping qualities, Dakota Black's 4½" dark maroon-black ears with 15 rows are extremely decorative, a must for the fall roadside stand. 4' stalks. ICS-certified. ①

**A**=2oz, $2.80 **B**=8oz, $11.00 **C**=1lb, $20.00 **D**=5lb, $95.00
**E**=10lb, $180.00

**677BO Pennsylvania Dutch Butter Flavored OG** (102 days) **Open-pollinated** popcorn so good on its own that you won't need to add any nutritional yeast. Our trialers agreed that it was the best they'd ever tasted: creamy, buttery and delicious. Incredibly green and healthy 8' plants with very long dark green leaves set two 4–6" stocky ears per stalk, with 26–28 rows (occasionally 22) of fat creamy white kernels. Thanks to our friends at Southern Exposure Seed Exchange for enabling us to offer this pre-1885 Pennsylvania Dutch heirloom. SESE was the first to bring this variety to commerce, in 1988. QCS-certified. ①

**A**=2oz, $3.20 **B**=8oz, $12.50 **C**=1lb, $24.00 **D**=5lb, $110.00
**E**=10lb, $200.00

**679CP Calico** (105 days) **Open-pollinated**. An heirloom dual-purpose corn with 5–8" ears that look like smaller versions of Indian corn. The shiny bright ears come in an array of colors, with red, yellow and mottled rosy-brown most common, but brown, purple, blue, white and other combinations possible. Kernels are smaller than those of most Indian corns, but larger than conventional popcorns. Calico is both decorative and edible so you can hang it on your door in fall and pop the very same batch on Thanksgiving. Seed grown by the Biseks in Minnesota. ~200 seeds/oz. ①

**A**=1oz, $2.00
**B**=4oz, $6.50
**C**=1lb, $21.00

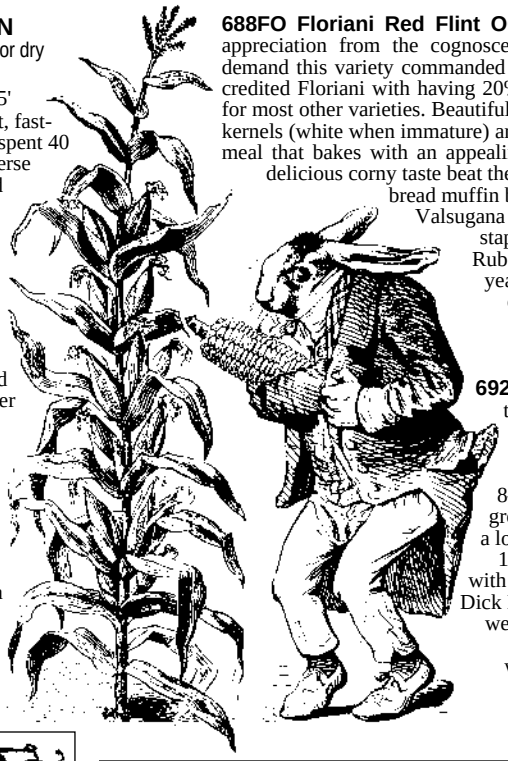
Most of the information in our pest management sidebars comes from Cornell's *Resource Guide for Organic Insect and Disease Management* (available online).

Pest: corn earworm
Cultural controls: use resistant varieties with tight husks such as **541** Bodacious RM or **658** Silver Queen, choose short-season varieties, release trichogramma wasps. (Beneficial insects are available from Beneficial Insectary at insectary.com or 800-477-3715.)
Material controls: *Bt Kurstaki* (Dipel **8902**-**8906**), Spinosad (**8922**-**4**)

Pest: European Corn Borer (ECB) and fall armyworm
Cultural controls: mow and disk old corn stalks into the soil, release trichogramma wasps (found to give better control than insecticides in research by Cornell's IPM program on five organic farms) for ECB; none known for fall armyworm.
Material controls: *Bt Kurstaki*, Spinosad

## ORNAMENTAL & DRY FIELD CORN

**Average 100 seeds/oz.** All open-pollinated. Days to maturity are for dry stage.



**680PO Painted Mountain OG** (85 days) Short efficient 5' plants, long thin 6–7" cobs. Painted Mountain is the hardiest, fastest-maturing grain corn in the world. Dave Christensen has spent 40 years developing it in the mountains of Montana from a diverse gene pool of about 80 strains of native corns. Contains vivid golds, oranges, reds and purples, about every shade of color known to corn. High in anthocyanins. Bred to withstand high winds, cold temperatures, intense heat and drought, and to survive global warming. Painted Mountain grows where no other corn can. MT-certified. ①

**A**=2oz, $4.20 **B**=8oz, $16.00
**C**=1lb, $30.00 **D**=5lb, $145.00
**E**=10lb, $270.00

**682CO Abenaki Calais Flint OG** (88 days) An improved strain of Roy's Calais Flint, selected by Vermont seed grower Jack Lazor for 10-row ears and strong feeder roots. The original, kept by the northern Vermont Abenaki tribe for generations, had 8 rows of kernels. Abenakis passed it on to local farmers who shared it with Vermont seedsman Tom Stearns. Stearns has called it the most exciting heirloom he was ever given: "Incredibly early and able to grow well under cold conditions." Survived even the legendary summer of 1816 ("Eighteen hundred and froze to death.") Most of the 7–9" ears are golden yellow but a minority are a beautiful dark maroon. MOFGA-certified. ①

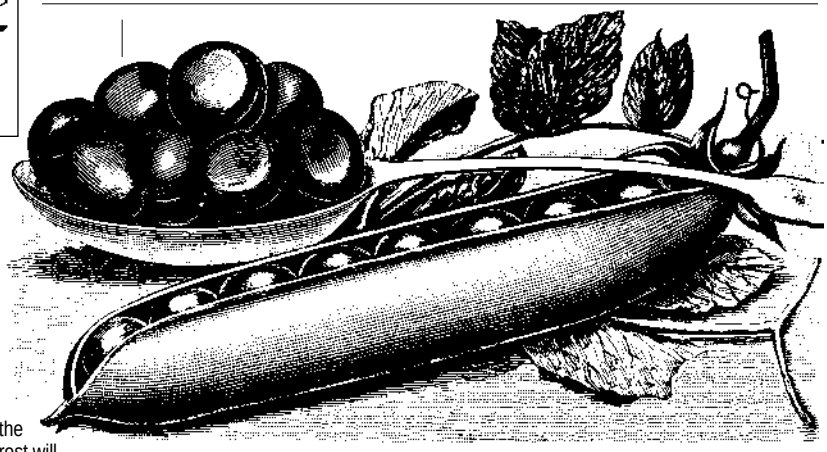
**A**=2oz, $2.50 **B**=8oz, $9.00
**C**=1lb, $17.00 **D**=5lb, $80.00
**E**=10lb, $150.00

**688FO Floriani Red Flint OG** (100 days) *Z. m.* var. *rostrato* Steady appreciation from the cognoscenti has now replaced the unprecedented demand this variety commanded a few years ago after *Mother Earth News* credited Floriani with having 20% protein content, compared to about 15% for most other varieties. Beautiful cobs with fabulous flavor. The red pointed kernels (white when immature) are easy to shell and grind into a fine pinkish meal that bakes with an appealing spongy texture. Floriani's richly sweet delicious corny taste beat the competition silly in our pancake and cornbread muffin bake-off. Family heirloom brought from the Valsugana Valley of Italy by William Rubel. Once the staple polenta corn in the valley and named for Rubel's friends who've grown it there for many years. Short crop this year; *order early.* QCS-certified. ②

**A**=2oz, $2.70
**B**=8oz, $10.00
**C**=1lb, $19.00

**692HB Hopi Blue** (100 days) Precursors of this strain have been raised continuously for 800 years on the mesas of northern Arizona. Used by the Hopis to make ceremonial *piki* bread. Tall 9' plants produce large 8–10" ears with beautiful deep kernels easily ground into flour. Very drought-tolerant, with a long taproot. Withstood temperatures of over 100˚ and survived a June 2008 Kansas storm with winds up to 83 mph and softball-sized hail. Dick Burnham of Talking Crow Organic Farm in western Massachusetts reports it is not just for flour, it is good to eat, "crunchy, corny and wholesome." ③

**A**=2oz, $3.80 **B**=8oz, $15.00
**C**=1lb, $29.00 **D**=5lb, $140.00
**E**=10lb, $260.00



**2 oz packet sows 25 ft; 1 lb, 200 ft. Avg 250 seeds/2 oz pkt. All peas are open-pollinated.**

**Culture:** Peas are legumes with moderate fertility requirements. Avoid excess nitrogen: they can fix their own. Use **798** legume inoculant as an aid. They prefer cool, moist weather and dislike dry heat. Sow as early as ground can be worked for best yields. All peas produce more when staked; varieties over 2½' *must* be supported. Use either **9071** trellis plus or chicken wire. Install support at planting time to avoid disturbing seedlings. Plant 8–10 seeds/ft on each side of supports in double rows. Set supports for rows 3' apart (5' if very tall varieties).

Young plants are very hardy but frost stops production at the blossom or pod stage. If you love peas as much as we do, try for a second crop in the fall. Timing is crucial, as peas ripen slowly in the cool of September, and frost will halt production. We recommend planting the first two weeks of July for a fall crop in central Maine. Warmer areas try later July. If the summer is hot, cool the soil with a hay mulch in advance of planting, or shade peas with tall crops to hold in soil moisture.

Peas are 25% sucrose by weight and lose nearly half their sugars within 6 hours at room temperature. That's why they taste best grazed right off the vine. Keep cool and shell as soon as possible after picking for freezing.

Not well adapted to southern climates where the spring heats up too quickly. Pam Dawling in Virginia has great success with **883** Sugar Ann but cannot grow the tall longer-season **893** Sugarsnap in her climate. Consult her book *Sustainable Market Farming*, **9855** in our book section, for advice for climates much warmer than ours.

Smooth-seeded peas germinate better in colder soils than wrinkle-seeded peas, but are not as sweet. Minimal soil temperature for pea seed germination: 40˚. Optimal range 50-75˚, optimal temperature 75˚, emergence takes 14 days at 50˚, 9 days at 59˚, only 6 days at 77˚. Pam Dawling suggests that forsythia flowering signals time to sow snap and snow peas.

**Diseases:**

| | |
|---|---|
| CTV | Curly Top Virus |
| DM | Downy Mildew |
| F | Fusarium |
| PEMV | Pea Enation Mosaic Virus |
| PM | Powdery Mildew |
| PSV | Pea Streak Virus |
| W | Common Wilt race 1 |

Powdery mildew looks like someone sprinkled talcum powder over the vines. It spreads rapidly by picking in hot dry weather. Pick in early morning while the dew is still on the foliage to slow its spread and ensure best flavor. To combat the fungus, try Actinovate (**8851-2** in the supplies section). Fusarium causes vines to dry out, yellow, then brown and die. As a preventive, always sow peas on well-drained soil. Fusarium-infested soils are said to be pea sick. Do not save seed from plants afflicted with fusarium which can be seed-borne. Rotate out of legumes for at least four years. Brassicas, especially mustards, are good disease-suppressant successions.

## SHELL PEAS

**Coral** (53 days) The supplier has discontinued Coral; *no longer available.*

**732FR Early Frosty** (60 days) Outstanding quality and sweetness, a superior variety for freezing. At its best before the pods are completely filled. Tricky to pick, but one of the easiest to shell. Holds quality for a long time after picking. Vines grow up to 3'. Susceptible to PM; performs best in early sowings. Production is dependable, often exceeding 30 lb/100 row feet. First harvest June 26 from Apr. 12 sowing this cool spring; June 24 in 2013. 6.9 peas per pod in 2014. Resistant to F and W. ③

**A**=2oz, $1.40 **B**=8oz, $4.50 **C**=1lb, $6.50 **D**=5lb, $20.00
**E**=10lb, $35.00 **K**=25lb, $70.00 **L**=50lb, $120.00

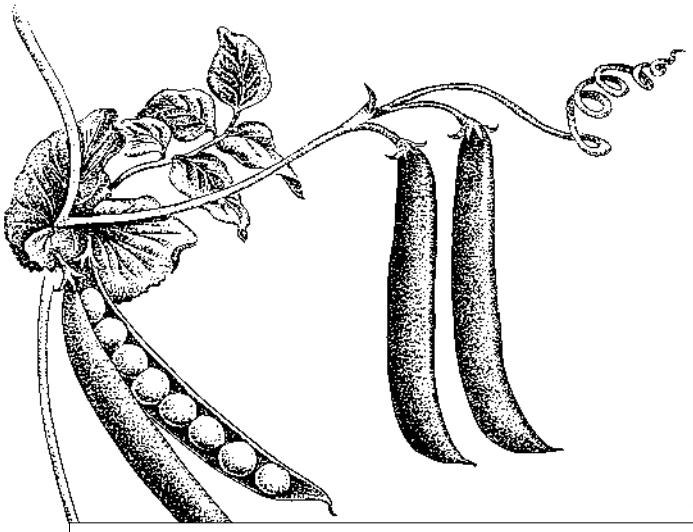
**Patriot OG** (62 days) *Not available this year;* we are cleaning out off-types in the production.

**Progress #9** (62 days) *Regret not available in 2015.* Recent production plagued by off-types. *If your crop was not satisfactory, please write for a refund or a free replacement packet of a close substitute.*

**761GO Green Arrow OG** (65 days) The pea preferred by commercial growers, always on target for heavy yields. Sets the standard for midseason varieties. Long pods with up to 10 peas per pod (more typically 7–8) on vines up to 3'. 6.99 peas per pod average in 2011. Seems to withstand miserable and extreme weather better than other varieties. Easy to pick because pods tend to set in pairs at the top. Tolerant to F, DM, CTV, W. ID-certified. ①

**A**=2oz, $2.10 **B**=8oz, $6.50 **C**=1lb, $11.00 **D**=5lb, $50.00
**E**=10lb, $85.00

**Off-types:** Off-types continue to be a problem in conventional pea seed crops. We've noted the increase of a tall pale-green rogue in **732** Early Frosty, and have discontinued offering conventional Progress #9 and **760** Green Arrow. Pull out off-type plants or consider switching to our organic selections which have better purity.



**Supplier Codes** Know where your seed comes from! Details on page 5.
① Small seed farmers including Fedco staff.
② Family-owned companies or cooperatives, domestic and foreign.
③ Domestic and foreign corporations not part of a larger conglomerate.
④ Multinationals not to our knowledge engaged in genetic engineering.
⑤ Multinationals who are engaged in genetic engineering.
⑥ Manufacturers of neonicotinoids: Bayer and Syngenta.

**764MP Magical Mystery Pea** (67 days) The Magical Mystery pea is dying for you to take it away. Sent to us as conventional Green Arrow, but it is not. Grew 4' vines in our lot growout, a taller plant habit and different pods from true Green Arrow. Plenty of peas of satisfactory quality, but not Green Arrow. For those who like mysteries and who like saving money. ③
**A**=2oz, $1.00 **B**=8oz, $3.20 **C**=1lb, $5.00 **D**=5lb, $15.00

**779NA Iona Petit Pois** (68 days) The discriminating French palate demands smaller sweeter more tender pods with peas that are only about half the size to which we are accustomed here. Although it takes more time and trouble to pick a mess of these, the rewards are commensurate with the effort. A heavy yielder for a petit pois, Iona sets two and sometimes even three blunt 3" dark green pods per node, on short 24–28" vines, with exceptional sweet full pea flavor comparable in complexity to Miragreen. Tolerant to F1,2 and PM. ③
**A**=2oz, $1.60 **B**=8oz, $4.80 **C**=1lb, $8.00 **D**=5lb, $26.00
**E**=10lb, $42.00

**781LC Lincoln** (70 days) With good shell pea varieties so hard to find, consider returning to this old English favorite that we still rate as the sweetest pea and the best for fresh garden grazing. First offered in America by J.M. Thorburn in 1908, the year before the first Lincoln penny. Vines up to 3' bear 3–3½" slender curved pods with heaviest production in mid-July. Consistently 6–8 peas per pod, 7.14 average in 2011, 6.52 in 2012 from first picking on June 27. In 2004 our 60' row produced an all-time record 33 lb. Lincoln loves cool rainy Julys such as 2009 and 2014 but produces much less when July is hot and dry as in 2012. Susceptible to PM and other diseases so a good choice only if you can get on your ground early enough in the spring. Tolerant to W. ③
**A**=2oz, $1.40 **B**=8oz, $4.50 **C**=1lb, $6.50 **D**=5lb, $20.00
**E**=10lb, $35.00 **K**=25lb, $70.00 **L**=50lb, $120.00

**Mayfair OG** (72 days) Regret no crop; *not available this year.*

**792AL Alderman** or **Tall Telephone** (75 days) All-America winner Mr. Big got the hype, but failed to supplant this old-time favorite as our #1 tall pea. In our trial, Alderman topped Mr. Big in peas per pod, 7.65–6.94, in yield 38–28 lb per 100 row feet, and in flavor. Alderman boasts vines of 5–6' or more under fertile conditions, needs strong staking and frequent picking. Introduced by renowned pea breeder Thomas Laxton around 1891 and first sold by Burpee in 1901. Resistant to W. ③
**A**=2oz, $1.40 **B**=8oz, $4.50 **C**=1lb, $6.50 **D**=5lb, $20.00
**E**=10lb, $35.00 **K**=25lb, $70.00 **L**=50lb, $120.00

## SOUP PEAS

**Blue Pod Capucijners** (85 days) No crop*; not available in 2015.*

**Amplissimo Viktoria** (90 days) Cleaning up the strain, we hope to have back in 2016, *not available in 2015.*

## INOCULANT

Use these item numbers if ordering inoculants with a Seed order. They can also be ordered from the Supplies section, and some other inoculants are available only in the Supplies section, page 127.

**798LG Legume Inoculant** for peas and beans.
**A**=treats 8#, $5.00 **B**=treats 50#, $8.00

**799SB Soybean Inoculant** for soybeans.
**A**=treats 50#, $6.00

# EDIBLE PODDED PEAS

**2 oz packet sows 25 ft. 1 lb sows 200 ft.**

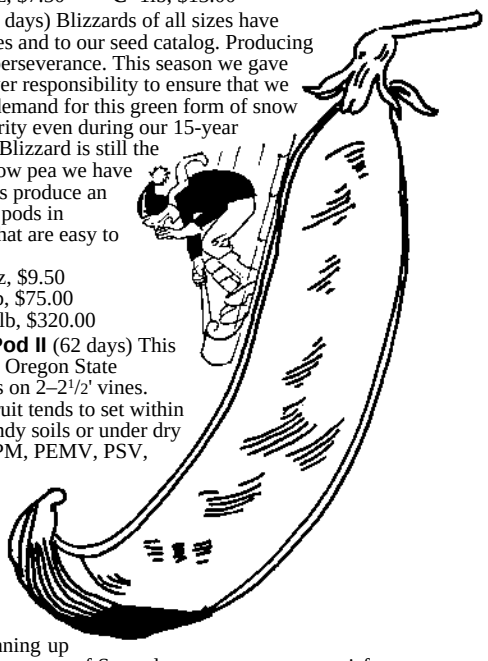
**Culture:** Culture same as shell peas, except harvest snow peas before pods fill out. Don't pick snap peas too soon: snaps taste sweetest when completely filled. Young snow and snap plants can be eaten as greens, good in mesclun or lightly cooked. To serve pea shoots, remove the coarse tendrils and break the stalk into 3" pieces each with some leaves.

## SNOW PEAS

**Oregon Giant** (60 days) This Oregon State University release bred by Dr. James Baggett is our most popular snow pea. A giant selection from a giant breeder, Oregon Giant is distinguished for its sweet rich green fat wide 4–5" pods good for stir-fries, steaming, and eating out of hand. Retains sweetness so may be picked a little plumper than the thin-podded varieties. We recommend staking the intermediate 3–4' vines. Resistant to PEMV, PM and F1.
**818GT Oregon Giant** ③
**A**=2oz, $1.50 **B**=8oz, $4.50 **C**=1lb, $7.50 **D**=5lb, $25.00
**E**=10lb, $42.00 **K**=25lb, $88.00 **L**=50lb, $165.00
**819GO Oregon Giant OG** ID-certified. ①
**A**=2oz, $2.20 **B**=8oz, $6.50 **C**=1lb, $10.50 **D**=5lb, $48.00
**E**=10lb, $84.00 **K**=25lb, $190.00

**820GB Green Beauty** (60 days) Thanks to superb breeding by genius Alan Kapuler, revered by his friends as "Mushroom," we get to enjoy this outstanding purple-flowered snow pea. Its lush foliage and astounding production made a huge impression in our 2011 trials. Long 5" light green pods, a few with pink blush, ridiculously tasty even when filled out. Flowers are in two tones. Stake this rampant baby; it can grow 7–8' vines. ① **BACK!**
**A**=2oz, $2.50 **B**=8oz, $7.50 **C**=1lb, $13.00

**822BO Blizzard OG** (61 days) Blizzards of all sizes have returned to our winterscapes and to our seed catalog. Producing this seed crop is a trial of perseverance. This season we gave our main organic pea grower responsibility to ensure that we could meet the continued demand for this green form of snow that lost none of its popularity even during our 15-year wait for its PVP to expire. Blizzard is still the best intermediate-vined snow pea we have ever tried. The 3–3½' vines produce an avalanche of sweet thin 3" pods in heavily concentrated sets that are easy to pick. ID-certified. ①
**A**=2oz, $2.50 **B**=8oz, $9.50
**C**=1lb, $18.00 **D**=5lb, $75.00
**E**=10lb, $140.00 **K**=25lb, $320.00



**826SP Oregon Sugar Pod II** (62 days) This short-vined snow pea from Oregon State University features 4" pods on 2–2½' vines. Difficult to pick because fruit tends to set within foliage. Good choice in sandy soils or under dry conditions. Tolerant to F, PM, PEMV, PSV, resistant to W. ③
**A**=2oz, $1.50
**B**=8oz, $4.50
**C**=1lb, $7.50
**D**=5lb, $25.00
**E**=10lb, $42.00
**K**=25lb, $88.00
**L**=50lb, $165.00

**Sumo OG** (66 days) Cleaning up off-types in the stock. If your crop of Sumo last season was not satisfactory, please write for a refund. *Not available in 2015.*

**Mammoth Melting Sugar** (72 days) Variety has gotten crossed up; *not available in 2015.*

Go to your fields and your gardens, and you shall learn that it is the pleasure of the bee to gather honey of the flower, but it is also the pleasure of the flower to yield its honey to the bee. For to the bee a flower is a fountain of life, and to the flower a bee is a messenger of love, and to both, bee and flower the giving and the receiving of pleasure is a need and an ecstasy. People of Orphalese, be in your pleasures like the flowers and the bees.
–Kahlil Gibran, from *The Prophet*

**Bulk Orders** - To order quantities of four or more times the largest size listed here please email **seedquality@fedcoseeds.com** for availability and price quote.

## SNAP PEAS

**883GO Sugar Ann OG** (58 days) 1983 Silver All-America winner bred by Calvin Lamborn and named for one of his daughters. Very popular both with home gardeners and commercial growers. The earliest snap pea, ripening in Central Maine around June 20, earlier in warmer areas, when customers are still excited about peas and greedy to purchase them in quantity. Alan LePage says good timing is crucial for optimal root development early in the season, the key to high yields. If you sow early into cool soil with good organic matter and your soil doesn't heat up too fast, they produce bushels and bushels well into July and can command up to $8 per lb. He has sown as early as Mar. 18 in a warm spring, Apr. 11 this past cool year. Very good quality, sweetest of the dwarf snap peas. 2' vines are not as heavy-yielding as tall Sugarsnap. Use to start the season. Allow extra space between rows if you do not stake. *Still has a small percentage of off-types.* Resistant to W. ID-certified. ①

**A**=2oz, $2.20 **B**=8oz, $6.50 **C**=1lb, $10.50 **D**=5lb, $48.00
**E**=10lb, $84.00 **K**=25lb, $190.00 **L**=50lb, $350.00

*MEMBER SPECIAL*
*Offered first come, first served to Fedco Co-op members only!*
See page 89 to join our cooperative.

**885MG Mega** (64 days) The sugarsnap of a million pods returns to commerce. Hyperbole notwithstanding, this one is big. These vigorous 3' vines have been outstanding performers in Colrain the past two years, heavily laden with slightly curved crisp juicy 4" pods that reach maximum sweetness when they are really chubby. Intermediate between Sugar Ann and Tall Sugarsnap in vine height and maturity, but sturdier vines than either. Offered by Territorial from 1996-2007, but missing since. Our thanks to Rebecca Slattery of Persephone Farm in Indianaola, WA, for twice providing us with stock seed (Hurricane Irene devastated our 2011 multiplication and we had to start over.) In her words, "though not as sweet as Sugarsnap, their shorter vines, productivity and delicious pea flavor put them in a class of their own. As a market gardener I find that their heft helps us collect a huge poundage in a very short time." I totally agree; my hardest task in multiplying the seed was to keep eaters out of the patch. Resists PEMV. ① **NEW!**

**A**=2oz, $2.80

**886SL Sugar Lode ECO** (65 days) Crop failure; *no seed available this year.*

**Cascadia** (65 days) It's a snap to grow Cascadia. Ripening about a week later than Sugar Ann on slightly taller (2½') vines, Cascadia sends a cascade of 3" pods, longer and darker green than Ann's and equally sweet. Developed by Dr. Baggett, tolerant to F & PM, and the first pea bred to be resistant to PEMV.

**888CA Cascadia** ③

**A**=2oz, $1.50 **B**=8oz, $4.50 **C**=1lb, $7.50 **D**=5lb, $25.00
**E**=10lb, $42.00 **K**=25lb, $88.00 **L**=50lb, $165.00

**889CO Cascadia OG** ID-certified. ①

**A**=2oz, $2.20 **B**=8oz, $6.50 **C**=1lb, $10.50 **D**=5lb, $48.00
**E**=10lb, $84.00 **K**=25lb, $190.00 **L**=50lb, $350.00

**893SO Sugarsnap OG** (68 days) Always a top seller, this breakthrough variety was ten years in the making after breeder Lamborn made his first cross in 1969. Upon its release Sugarsnap was awarded the coveted AAS Gold Medal and later voted the #1 all-time AAS. Lamborn, at age 80, through his own seed company in Twin Falls, ID, is still breeding experimental snow and snap pea varieties of remarkable colors (see www.eatmorepeas.com) and marketing them to top chefs. His original is one of the very best raw treats in the garden, far tastier than the dwarf varieties, although more work to grow. Tall Sugarsnap vines climb 5–7' and need strong stakes. Pods reach superb sweetness only when completely filled. Then they are incomparable. *Our production still has a small percentage of off-types.* Resistant to W, very susceptible to PM. ID-certified. ①

**A**=2oz, $2.40 **B**=8oz, $7.00 **C**=1lb, $11.50 **D**=5lb, $52.00
**E**=10lb, $90.00 **K**=25lb, $210.00 **L**=50lb, $390.00

**Opal Creek OG** (70 days) No crop this year; *not available in 2015.*

**Avoid disappointments!**
Order Early! Many seed crops, especially of rare niche varieties, are short.
Check our website **fedcoseeds.com** for up-to-date availability information.

# MELONS

Fascinated by heritage melons? Amy Goldman's *Melons for the Passionate Grower* (ISBN 1-57965-213-1), a mouth-watering journey through her 100 favorite varieties, is an indispensable identification and cultural aid.

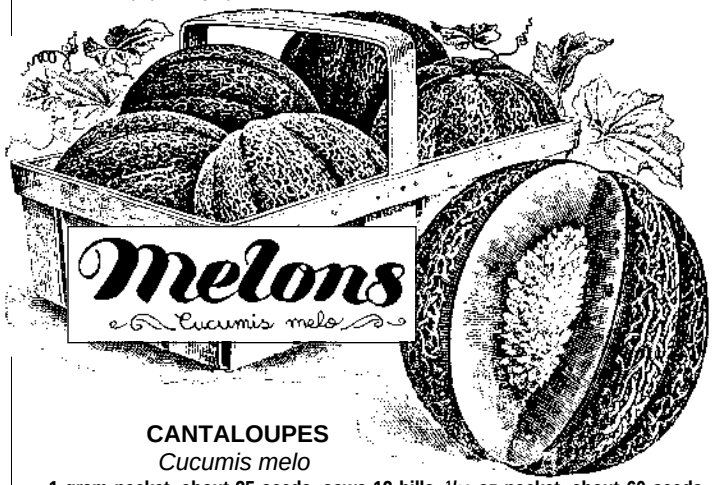
Melon seed lives more than 10 years with proper storage. 18th- and 19th-century growers preferred to sow 4- to 10-year-old melon seed, believing that such seeds produced plants that spread less and fruits with a finer perfume.

**Culture:** See the sidebar on the next page.

**Days to maturity are from date of transplanting.**

**Diseases:**

| | | | |
|---|---|---|---|
| F | Fusarium | WMV | Watermelon Mosaic Virus |
| PM | Powdery Mildew | ZYMV | Zucchini Yellows Mosaic Virus |
| PRSV | Papaya Ring Spot Virus | | |




## CANTALOUPES

*Cucumis melo*

**1 gram packet, about 35 seeds, sows 12 hills, 1/16 oz packet, about 60 seeds, sows 20 hills. 1oz=about 960 seeds.**

**Definitions:** Cantaloupes, named for the papal gardens of Cantalupo, Italy where some historians say the first cantaloupe was grown, are smooth-skinned or lightly netted with few ridges. Some are warted. They tend to take longer to mature than muskmelons. Blushing skin color and a whiff of perfume are usually telltale signs of ripening.

**Culture:** Melons produce highest sugars when daytime temperatures exceed 80˚ and night temperatures are 60–75˚. 2012 met those conditions to a T, so it was a great melon year. 2014 was better than 2013, saved by the late August and early September hot spell. See the sidebar on page 16 for additional cultural instructions.

Minimum germination soil temperature 60˚, optimal range 75–95˚, optimal temperature 80˚, emergence takes 8 days at 68˚, only 4 days at 77˚.

**930PO Petit Gris de Rennes OG** (85 days) Open-pollinated. The champagne of French heirloom melons, as rewarding as it is challenging to grow, as delicious as it is visually unassuming. First noted in the garden of the Bishop of Rennes nearly 400 years ago, now maintained and intensively managed by an artisan melon cooperative in France. Features dense **peachy-orange flesh** sweet, lush, juicy and aromatic. Neither early, high-yielding nor easy to tell when ripe, this true cantaloupe without netting ripens very slowly, a golden-tan color spreading from the blossom and becoming pebbly. Cut from the vine when the blossom end is soft and the color has changed halfway up the fruit, then allow to sit until you can no longer resist its alluring perfume. Consume any that split immediately. Overripe, though sometimes still good, if left to slip. A delicacy, not a production melon. Fruits average 1½–2 lb, variable in size and shape, ripening over a long period. Loves great soil, full sun, black or green IRT plastic, row cover and irrigation. Without such TLC, will probably give only one fruit per plant. In 2011, a year of low Brix, had the highest readings in Alice Percy's trial, averaging 9½% sugars. IA-certified. ②

**A**=1/16oz, $2.10 **B**=1/4oz, $6.30 **C**=1/2oz, $11.50 **D**=1oz, $20.00

**943FO Prescott Fond Blanc OG** (88 days) Open-pollinated. *Fond Blanc* translates to 'white bottom.' Don't be fooled by the outer appearance of this wrinkled bumpy warted thick-skinned puffy-looking grey-green rock melon! (One author describes the skin as "tough as rhinoceros hide.") Looks like spumoni on the inside, the layers of green and yellow rind giving way to **deep orange flesh** in the center. Then oo-la-la! Sniff its rich bouquet and bite into the juicy melting dense savory flesh. As Prescott's 3–5 lb true cantaloupes ripen they develop a yellow blush and a floral redolence, and finally slip off the vine with light pressure when fully ripe. Bring them in and let them sit for a week, then enjoy! Fruits ripen variably, vines keep producing, averaging about four melons per hill. IA-certified. ②

**A**=1/16oz, $2.10 **B**=1/4oz, $6.30 **C**=1/2oz, $11.50 **D**=1oz, $20.00

**Optimal Germination Guide**
Sowing seeds at sub-optimal temperatures is the most common cause of failure. We include information in headers about ideal germination temperatures, taken and extrapolated from tables in *Knott's Handbook for Vegetable Growers* ISBN 0-471-73828X and *The New Seed-Starters Handbook* by Nancy Bubel, ISBN 0-87857-752-1.

## Most Years You *Can* Vine-Ripen Melons In Maine

Melons are a tender crop with high nitrogen requirements. They love heat, cannot stand frost, and may be damaged by night temperatures below 40˚. Though they require some extra fussing, the results are sure worthwhile.

✺ Note days to maturity and select varieties that will ripen in your climate. Alvaro, Diplomat, Halona, Blacktail Mountain, Petite Yellow, Peace and Gold Flower are surest bets.

✺ Start indoors in early May (later if the spring is slow to warm) in plastic or peat pots, 2 or 3 seeds to a pot. Melons resent transplanting but will take if their roots are not disturbed.

✺ Prepare hills in advance with liberal amounts of well-rotted manure or compost. Don't place melons next to vigorous crawling plants like cucumbers, gourds or winter squash.

✺ A cold start can permanently stunt growth, so wait for a warm spell after all danger of frost to transplant, usually between May 20th and June 20th. Water heavily and, if soil is dry, place a temporary hay mulch around plants until a soaking rain comes.

✺ Melons are much more sensitive than squashes so use low tunnels with floating row covers that do not abrade plants. If you have sandy soil, check daily and irrigate when needed.

✺ Use blue, black or clear plastic mulch between plants.

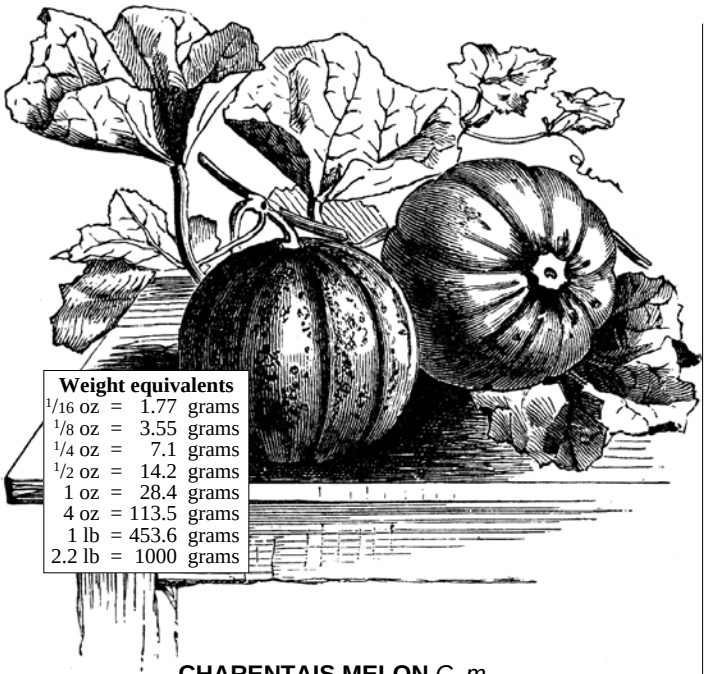
✺ Use a foliar feeding program to speed ripening.

✺ Remove row covers before buds open. Replace them when you don't desire any more fruit to set.

✺ To reduce rot loss, rotate ripening melons occasionally. To reduce mouse damage, place ripening melons on bricks.

✺ Inspect your patch *daily* at ripening time. Check fruits for aroma and color and *pull gently* on those that appear to be ripe. Most muskmelons are ripe when the pressure causes them to slip from the vine. Galia types are ripe when they blush yellow well before full slip. For Petit Gris de Rennes, see page 15. Charentais, see below; honeydews, next page.

✺ Enjoy an incomparable taste treat!



| Weight equivalents | | |
|---|---|---|
| 1/16 oz | = | 1.77 grams |
| 1/8 oz | = | 3.55 grams |
| 1/4 oz | = | 7.1 grams |
| 1/2 oz | = | 14.2 grams |
| 1 oz | = | 28.4 grams |
| 4 oz | = | 113.5 grams |
| 1 lb | = | 453.6 grams |
| 2.2 lb | = | 1000 grams |

## CHARENTAIS MELON *C. m.*

**1/4 gram packet, about 9 seeds, sows 3 hills.** This French melon is a true **cantaloupe**, almost smooth with no netting. Green skins blush yellow-tan when ripe, fruits emit a memorable redolence. Harvest at half-slip (they pull off with a moderate tug) and bring inside for a day or two for best flavor. Don't wait till full slip when they are over-ripe.

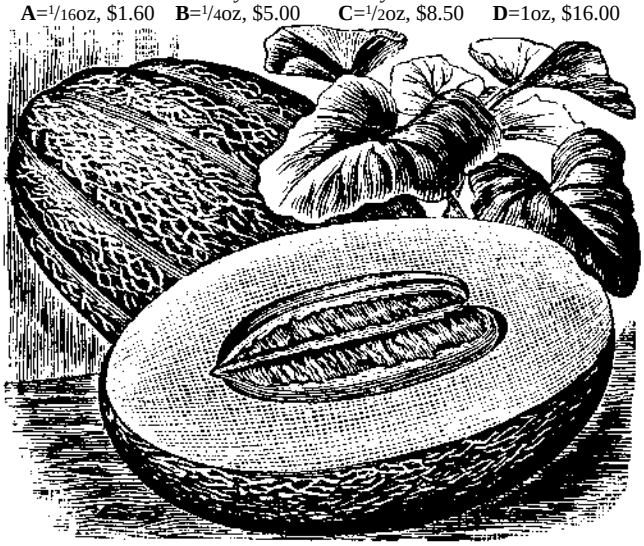
**948AV Alvaro** (77 days) F-1 hybrid. A class of **cantaloupe** notoriously slow to ripen and difficult to harvest ripe without splitting, the ideal Charentais eluded our trialers for years until Heron found Alvaro. Alvaro takes the mystery out of growing Charentais. Heron calls it the Halona of Charentais melons because his, so early, matured around the same time as Halona in 2013. Mine, first ripening on Sept. 4, 2014, the day after my French Orange and twelve days after my initial Halona, were still way earlier than any other Charentais I had ever tried. Almost as if sculpted, grey-green Alvaro shows remarkable uniformity. All 5 fruits, averaging 2.28 lb., ripened within a 3-day window, none splitting or showing any other damage. Even in water-bursting 2013, Heron had nary a split. Deeply sutured 5x6" fruits without netting fill the room with that incomparable Charentais aroma. Thick **orange flesh** luscious and succulent with silky but firm texture and rich full-bodied flavor, everything we've wanted in a Charentais but not found since French Orange. ④

**A**=0.25g, $3.20 **B**=1g, $8.80 **C**=3g, $24.00

## CRENSHAW MELON *C. m.*

**950SF Sweet Freckles ECO** (89 days) Open-pollinated. Earlier, smaller and more flavorful than Burpee's Early Crenshaw. Heron likens its flavor to that of an Indian dessert. Pear-shaped Freckles ripens from green to cream-yellow or light peach with dark greenish-orange splotches that give it its name. Harvest at full slip and allow to finish ripening indoors until its fragrance calls. Enjoy the creamy texture and perfumed flavor of its **light peachy-beige flesh**. Fruits averaged 2.2 lb topping out at 3.25. Can grow larger in warmer climates. Requires green or black plastic and row covers to approach its potential yield of 4 fruits per plant in our zone. Susceptible to PM; do not set out adjacent to other squash. All seed is held over. Because of slow sales *this is the last year we will carry.* ①

**A**=1/16oz, $1.60 **B**=1/4oz, $5.00 **C**=1/2oz, $8.50 **D**=1oz, $16.00



## GALIA-TYPE MELONS *C. m.*

**1 gram packet, about 20 seeds, sows 7 hills.**

**History:** The name Galia is the feminine form of the Israeli name *Gal* (meaning 'wave'). Developed in Israel around 1970 by breeder Zvi Karchi, Galias feature smooth **lime-green flesh** and a sweet taste with tropical overtones. Typically the fruits have corky netting but no ribbing.

**Culture:** Pull from the vine when the skin blushes yellow.

**954DP Diplomat** (76 days) F-1 hybrid. Vine-ripening Galia melons in the North and discerning just when to bring them in used to be a challenge comparable to making good diplomacy in the Middle East. While the latter remains intractable, Hollar mastered the former with this Diplomat. These 5+ lb fruits are early, fragrant and sweet all the way down to the rind. The two I harvested on the last day of August 2012 were delectable. Diplomat is easy to grow and easy to tell ripeness. It blushes yellow and slips off the vine. Enjoy this incomparable **green-fleshed cantaloupe** that replaced Passport. Who needs a Passport when you have a Diplomat? Tolerates PM. ②

**A**=1g, $2.30 **B**=3g, $5.60 **C**=15g, $25.00

**958AO Arava OG** (80 days) F-1 hybrid. Some years back, during a spring trip to Israel, I visited Genesis Seeds, the producers of this stellar **green-fleshed** melon that is named for the long valley that traverses much of the desolate Negev Desert in southern Israel. Though it is hard to believe that anything will grow in such a place, these Arava melons are the signature Israeli variety found in all the markets. A necessity there at the edge of the desert, where stepping outside mid-morning in April feels like entering a blast furnace. Unsurprisingly, I developed quite a taste for these sweet refreshing fragrant **cantaloupes.** Smooth, no ridges, lightly netted, blemish-free and uniform. In 2012, Alice Percy harvested 12 fruits from four plants, averaging 1.56 lb each. Will grow larger in a warmer climate. Tested 10.9 Brix for her. Resistant to PM. AGRIOR-certified. ③

**A**=1g, $2.10 **B**=3g, $5.20 **C**=15g, $22.50

### Basic Definitions

**Open-pollinated** varieties produce seed true to type if they are allowed to cross-pollinate only with other plants of the same variety. If they cross with *other varieties* of the same species, their seed will not be true.

**Hybrid** varieties are those produced from the crossing of two different inbred lines. *Seed saved from hybrid varieties will not breed true in the next generation.*

Amongst **open-pollinated** plants, **self-pollinated** (selfers) usually reproduce by using their own pollen. **Crossers** usually reproduce through the transfer of pollen from one plant to a different plant of the same species.

Botanical nomenclature goes from the general to the specific. Plants are classified into kinds by **genus**, **species** and **variety**. In *Cucurbita pepo* Sweet Dumpling, *Cucurbita* is the genus, *pepo* is the species and Sweet Dumpling is the variety.

## HONEYDEW MELONS *C. m.*

**Harvest tips:** Discerning ripeness in honeydews is an art. At least two or three of the following signs should align before you cut fruit from the vine: 1) Fruits are free of fuzz or minute hairs that denote immaturity. 2) Stems dry at tendrils. 3) Fruits assume proper coloration (different for different varieties). 4) Light firm pressure applied to fruit bottom results in a slight give or rubbery rebound (pick soon). Give extends into the curve outside of the blossom scar (pick now). Do not wait for full slip—fruits will develop cracks and get over-ripe. Cure 1–4 days off the vine for best flavor, until it develops a very subtle sweet smell of perfumed honey indicative of melting juicy full-flavored flesh.

**963US Uncle Sam** (78 days) F-1 hybrid. A perfect antidote for the saccharine promises of competing politicians. Among the first melons Heron picked in early August, 2012, and by far the largest. Weighing up to 4 lb, with an alluring yellow wash over the white base, perfumed extravagantly. Besides its solid musk and **deep orange flesh**, combines a great muskmelon texture and flavor with the sweetness of a honeydew. Healthy productive disease-resistant plants. Trialer Alice Percy, whose nine fruits from four plants averaged 3.2 lb and achieved an astonishing 13.9 Brix average, used capital letters in her demand that we list it. To paraphrase Alice and that famous pointed-finger slogan, "You want Uncle Sam!" Somewhat prone to cracking. Resistant to F0-2 and PM. ④

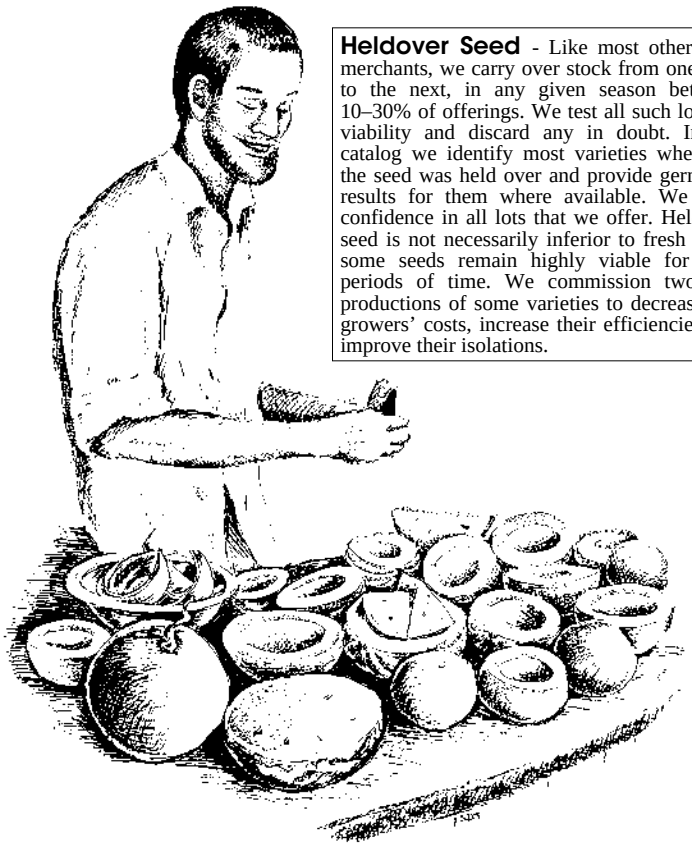
**A**=1g, $2.90 **B**=3g, $8.50 **C**=15g, $40.00

**966HN Orange Honey** (78 days) F-1 hybrid. This honey of a melon from China will mature in much of our sales area, indeed was the only melon to ripen for Rachel Katz at Terranian Farm in Troy, ME, in the horrid 2009 growing season. It is still her kids' favorite. Features oval-round melons whose yellow skins turn full bright orange at ripeness. They average 3 lb, although they can get bigger in a good year. Not all ripen in Maine, but the plants are very productive, and excel in good years and warmer climes. Our trialer Heron Breen describes their light **orange flesh** as crunchy crisp with an "orange popsicle flavor not frozen." Plenty sweet and satisfying right down to the rind. All our seed is held over. Though we were planning to drop this Honey after the 2015 season, Katz urges us to reconsider. Now its fate is in your hands. ③

**A**=1g, $1.70 **B**=3g, $4.50 **C**=15g, $17.50

**968WH White Honey** (80 days) F-1 hybrid. "Like eating the scent of a flower." Our tasters praised the **pearly, almost translucent flesh** of these juicy melons as mild and attractively sweet with a slight floral undertone. Heron's earliest and most productive melon in 2010, (under row cover and with both black plastic and irrigation, his harvest began August 15) and the first among 20 varieties to ripen for Alice Percy, starting on July 29, 2012. From four plants Percy harvested 20 of the oblong/oval melons over a long window. Fruits average 2.1 lb and received a high taste rating of 3.8 out of 4. Ripe when the skin turns from white to deep ivory and emits an addictive perfume. Keeps well for at least five days off the vine. All our seed is held over. ③

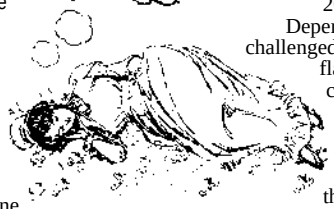
**A**=1g, $1.70 **B**=3g, $4.50 **C**=15g, $17.50



**Heldover Seed** - Like most other seed merchants, we carry over stock from one year to the next, in any given season between 10–30% of offerings. We test all such lots for viability and discard any in doubt. In the catalog we identify most varieties where all the seed was held over and provide germ-test results for them where available. We have confidence in all lots that we offer. Heldover seed is not necessarily inferior to fresh seed; some seeds remain highly viable for long periods of time. We commission two-year productions of some varieties to decrease our growers' costs, increase their efficiencies and improve their isolations.

## MUSKMELONS *C.m.*

**1 gram packet, about 20 seeds, sows 7 hills.** Muskmelons are usually heavily netted and deeply ribbed with larger seed cavities than cantaloupes. Trialer Alice Percy opines that they are easier and require less heat to grow well than cantaloupes.



**970HL Halona** (74 days) F-1 Hybrid. Always the earliest muskmelon to vine-ripen for me—Aug. 11 in the very warm 2012 season, Aug. 23 in the less warm one of 2014. Dependable, early and easy to grow even for the melon-challenged, delivering unusual sweetness and muskiness, the flavor everything you could ask in a muskmelon, no compromise for the earliness. Enjoys a broad range of geographic adaptation. Achieved a 3.4 taste rating out of a possible 4 in Percy's 2012 trial. The 6" oval fruits averaged 2.8 lb for Alice and 3.0 for me, boasting small seed cavities around thick sweet **orange flesh**. Alice's tested at 9.4 Brix, but it has recorded as high as 14–15 in other trials. Tolerant to some F strains, resistant to PM. ②

**A**=1g, $2.40 **B**=3g, $6.20 **C**=15g, $28.00

**972JO Jenny Lind OG** (76 days) Open-pollinated. Believed to have been developed from a strain called Center originally from Armenia. Named for beloved soprano Jenny Lind (1820-1887), the Swedish Nightingale. This heirloom melon, contemporaneous with her early career, remained very popular in the New York, New Jersey, and Philadelphia area until after her death. In his 1902 catalog, famed seedsman Peter Henderson called it "the gem of the muskmelons, flavor unsurpassed by any." Jenny has recently enjoyed renewed popularity in home gardens all over the country. Despite her sparse spindly vines, she is a prolific bearer of small heavily netted 1 lb fruits that blush when ripe. Achieved a high Brix reading of 12.1 in Alice Percy's SARE-funded 2010 melon trials. Jenny may be unique among melons for having a turban on her blossom end, but tends to be too soft there for shipping. Her soft juicy **lime-green interior flesh** is so sweet and musky that it just might make you sing. IA-certified. ②

**A**=1/16oz, $2.10 **B**=1/4oz, $6.30 **C**=1/2oz, $11.50 **D**=2oz, $40.00

**974MO Magnificenza OG** (78 days) F-1 hybrid. We give this classy, dark sutured and netted OG hybrid high marks for truth in advertising. At our first melon tasting of 2014, second-early Magnificenza far exceeded early standard Halona. Full-bodied caramel and cantaloupe sweetness was balanced with a bold shot of perfumed musk. Expect Brix levels of 12 to 15. Such **bright orange flesh** and smooth but solid texture is rare in short-season muskmelons. In a productive week, we picked 14 slightly oval 2–4 lb fruits from 3 hills. All blushed peachy-tan when nearing full slip, with only one flavor dud in the harvest. Very good resistance to F, PM and melon aphids (a dry climate plus). ④ **NEW!**

**A**=0.25g, $3.20 **B**=1g, $12.50 **C**=3g, $36.00

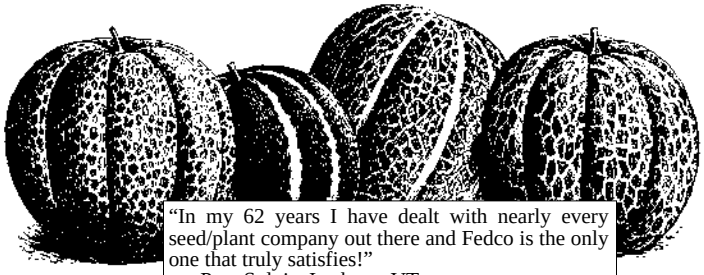
**975TH Athena** (80 days) F-1 hybrid. This muskmelon ripens early with nice **orange interior color**, good sweetness and not a hint of muskiness. Oval-round well-netted lightly ribbed fruits average 2 1/2–4 lb. An excellent shipper, recommended for commercial growers. 11.0 Brix at 2005 OSU trials. Second-best yielder among 10 melons in 2002 University of Maine trial. No sales to South Carolina. Tolerant to F0,1,2 and PM1,2. ⑥

**A**=1g, $3.10 **B**=3g, $9.00 **C**=15g, $44.00

**Oka** (83 days) Open-pollinated. *Not available this year.* We have dropped this Canadian variety and hope to have a replacement ready in 2016.

**979HC Hannah's Choice** (85 days) F-1 hybrid. "I trial about 25 melons every summer and so far my favorite has been Hannah's Choice, as long as I get it in early enough," says Ervin Melulena of Bernardston, MA. I agree. If I could grow only one muskmelon variety, Hannah would be my hands-down choice, for ease, appearance, and flavor. Further north, in Zone 4, its eating quality has been more variable. Nikos, our trials manager, likens its flavor to the tropical fruit cherimoya "custard apple" —smooth, perfumy, juicy with syrupy sweetness. The 6 1/2 x 5 1/2" large netted oval fruits average 3–5 lb (3.3 for me in 2012) with a high Brix rating of 13. As stunning on the inside as it is imposing on the outside, its rich green rind contrasts with the deep **orange flesh**. Kudos to the Cornell University breeding program for developing this gourmet melon. At trials in both Freeville and Jamesport, NY, it had 96% marketable fruits by weight besting Delicious 51, Earliqueen, Athena and Burpee Hybrid in color, depth, Brix and over-all quality. Resistant to PM, tolerant to F2, ZYMV, PRSV, WMV. ②

**A**=1g, $2.50 **B**=3g, $6.80 **C**=15g, $33.00



"In my 62 years I have dealt with nearly every seed/plant company out there and Fedco is the only one that truly satisfies!"
–Pam Sylvia, Irasburg, VT

## MUSKMELONS continued

**981GO Golden Gopher OG** (85 days) Open-pollinated. Again at at our 2010 Annual Meeting taste test Gopher outclassed the rest. Its 6" heavily ribbed fruits feature **deep orange flesh** of superb eating quality. Once achieved a Brix reading of 14 at Common Ground Fair Exhibition Hall, way ahead of any other muskmelon tested. Its Honeydew parentage helps account for its high sugar content as well as its resistance to F. Developed by the University of Minnesota in the 1930s, saved from probable extinction by Glenn Drowns, discovered and multiplied by our trialer Jeanne Griffin, and popularized by Jack Kertesz at his MOFGA gardens. Called "Pop Open" melons because they sometimes split open when ripe. Very susceptible to PM. CCOF-certified. ①

**A**=1/16oz, $1.60 **B**=1/4oz, $4.50 **C**=1/2oz, $7.50 **D**=1oz, $14.00

**984PO Pride of Wisconsin OG** (88 days) Rivals **981** Gopher for best open-pollinated muskmelon. Achieve melon nirvana: its superb smooth texture and juicy refreshing sweetness satisfy through and through with just the right delicate balance and no musky aftertaste. High-quality large oval **salmon-fleshed** 5–7 lb fruits have coarse netting and compact seed cavities. Edible all the way to the rind. Tends to crack at the blossom end during wet seasons. Not this year; my two fruits ripened perfectly Sept. 4th and 6th. However, not recommended for long-distance shipping. Known as Queen of Colorado when it was introduced in 1923 by the St. Louis Seed Co. Offered in the '40s and '50s by Burpee and Eastern States Cooperative. All but disappeared from the trade after the onset of hybridization, maintained by just a handful of seed savers. "I hadn't eaten Pride of Wisconsin since I was a kid," said Anne Elder. "Pride could be why even as a child I loved melons. Fine to eat even if cracked at the butt." ①②

**A**=1/16oz, $1.70 **B**=1/4oz, $5.50 **C**=1/2oz, $9.00 **D**=1oz, $17.00

**985DL Delicious 51** (88 days) Open-pollinated. Among the best widely available open-pollinated muskmelons for cold climates. One trialer compared its flavor to fine sorbet. Distinctively ribbed with sparse netting, its sweet 3 lb fruits turn yellow and are sometimes soft when ripe. **Dark orange interiors** with sweet juicy aromatic flesh. Received 11 Brix reading at 2005 Oregon State University trials. Developed by Dr. Henry Munger of Cornell University in 1953. Resists F, PM. ②

**A**=1/16oz, $1.20 **B**=1/4oz, $2.20 **C**=1/2oz, $3.80 **D**=1lb, $24.00

**987RF Rocky Ford Green Flesh** (90 days) Open-pollinated. A few years ago we lined up several green muskmelons in the same class, including Green Nutmeg, Eden's Gem, Netted Gem and Rocky Ford to go melono a melono for top honors. Rocky was the clear taste winner and replaced its grandfather Green Nutmeg. Developed by J.W. Eastwood in 1881 and named after the town that was the heart of the thriving Colorado melon industry and still is the headquarters of our favorite cucurbit supplier, Hollar. Rocky's vigorous vines produce 3–4 round heavily netted aromatic 2 lb fruits per plant. Fruits are ripe when they slip. Their fine-grained juicy **sweet green spicy flesh** has a pleasant smooth texture with a lingering muskiness. A good home-garden variety and short-distance shipper. ③

**A**=1/16oz, $1.20 **B**=1/4oz, $2.20 **C**=1/2oz, $3.80 **D**=1lb, $24.00

## SENSATIONAL MELON *C. m.*

**996SS Sensation** (85 days) F-1 hybrid. Bested Seminis-bred French Orange at a memorable late August melon taste-off, so good that it motivated both catalog editor Susan Kiralis and order-entry maven Bria Sanborn to grow melons for the first time. Each has raised it with good success the past two years experiencing great vine growth, prolific set and persistent production till late in the season. Very sweet, but not cloying, complex with haunting hints of hazelnut, amaretto and cinnamon. While very unlike French Orange, and not fitting into any of the usual classes of melons, Hollar's Sensation, with its glistening **white flesh**, takes the best parts from them all. In 2012 trialer Percy harvested seven of these prolific sparsely netted 2–4 lb fruits, most from Aug. 24–28. As they ripen, their green skin becomes burnished with an orangey-yellow haze and they slip from the vine. All seed is held over. Resistant to F0-2 and PM. ②

**A**=1g, $2.20 **B**=3g, $5.60 **C**=15g, $25.00

**Supplier Codes** Know where your seed comes from! See page 5 for details.
① Small seed farmers including Fedco staff.
② Family-owned companies or cooperatives, domestic and foreign.
③ Domestic and foreign corporations not part of a larger conglomerate.
④ Multinationals not to our knowledge engaged in genetic engineering.
⑤ Multinationals who are engaged in genetic engineering.
⑥ Manufacturers of neonicotinoids: Bayer and Syngenta.

## WATERMELON *Citrullus lanatus*

**1 gram packet about 20 seeds, sows 7 hills, 1/16 oz packet, packet about 40 seeds, sows 14 hills. 1 oz=about 670 seeds.**

**Culture:** See the sidebar on page 16. Harvesting watermelon at proper ripeness is an art. Thumping should produce a low, hollow sound. Spread thumb and forefinger and press hard on fruit. If you feel any give, watermelon is ripe. Don't heed the traditional advice to wait for the closest tendril to brown: that may be too late. Minimum germination temperature 60˚, optimal range 75–95˚, optimal temp. 90˚, emergence takes 12 days at 68˚, 5 days at 77˚, only 17% normal seedlings at 59˚, 94% at 68˚.

**Diseases:** ANTH Anthracnose F Fusarium

**1003BO Blacktail Mountain OG** (71 days) Open-pollinated. At age 17 cucurbit aficionado and future eminent seedsman Glenn Drowns took on his 4-year project to breed a watermelon that would withstand the rigors of his mountainous northern Idaho climate and ripen before first frost despite summer nighttime temperatures that averaged 43˚. No wonder Blacktail Mountain is the earliest variety extant, among the hardiest, best adapted to a variety of conditions, and even stores after harvest as long as any. Thanks to Adam Tomash and June Zellers who have shared tastes of their Exhibition Hall specimens as highlights of our Sunday afternoon table walks at Common Ground Fair. Tomash harvested 17 melons ranging from 4–15 lb from eight plants in two hills in 2012. Fruits are dark green, almost black with faint stripes, **flesh orange-red** like a Sugar Baby only with a cleaner more pleasing texture, very sweet, juicy and crunchy. Drowns didn't rest on his laurels—he now maintains Sand Hill Preservation Center in Iowa, his catalog a treasure trove of rare seed and poultry varieties. ID, MOSA-certified. ①②

**A**=1/16oz, $2.30 **B**=1/4oz, $9.00 **C**=1/2oz, $15.00 **D**=2oz, $50.00

**1007PY Petite Yellow** (75 days) F-1 hybrid. Our choice to compete with the Bambino and PureHeart minimelons all the rage in supermarkets. Jason Kafka praises it for its "outstanding shape and size from grower to purchaser…they pack into a box remarkably well." Light green with narrow dark green stripes and little more than half the size of Peace, these 4–5 lb **yellow-fleshed** cuties make perfect ready-to-go one-meal melons, sweet, juicy, with flavor and texture to please and very few seeds to interfere. Commercial growers also like its tough skin that resists cracking and permits long-distance shipping. Because we rate our other yellows as more flavorful, *this is the final year we will offer*. All seed is held over. ③

**A**=1g, $2.20 **B**=3g, $5.60 **C**=15g, $26.00

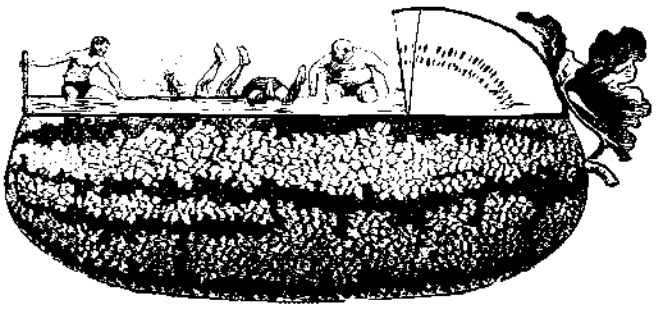
**1009PC Peace** (75 days) F-1 hybrid. At the end of my Common Ground Exhibition Hall table talk we had an opportunity to taste one alongside our old standard Seminis-Monsanto's Yellow Doll. Although the informal vote afterwards was split, Peace compared favorably in flavor, texture and sweetness enhanced with a floral aftertone that added some complexity. Its **yellow flesh** has that kind of drizzle-down-your chin juiciness that thoroughly satisfies on a hot late-summer day. Good production of 8 lb. avg fruits adorned with light green skin punctuated with narrow dark green stripes. ③

**A**=1g, $2.30 **B**=3g, $6.20 **C**=15g, $28.00

**1013GF Gold Flower** (75 days) F-1 hybrid. "These are my 5-star melons," says Kafka. In an August 2013 taste test I loved their complex sweet butterscotchy flavor that rated a 10.4 Brix at WSU. The Petite Yellow I tasted alongside seemed sweet but one-dimensional by comparison. In 2010 Heron picked his first ripe fruit on Aug. 6, a dozen days earlier than 2009. From mainland China, these 7x14" torpedo-shaped melons carry a payload of rich sweet flavor as their interior **flesh** ripens from yellow to **orange**. Thin dark green skins with black snakeskin markings resemble a dwarfed Giant Rattlesnake melon. Sets 4–6 fruits per plant, best picked before the tendrils totally wither, stored in a cool room for 24 hours before marketing, or 36–48 hours before eating. So early and productive, could benefit from a second succession planting. ③

**A**=1g, $2.20 **B**=3g, $5.60 **C**=15g, $26.00

"Just one opinion not from a farmer, I'd drop #4 and #5 suppliers in a heartbeat."
–Peter Baldwin



**1016DN Diana** (76 days) F-1 hybrid. Our 2013 summer hunt for yellow-skinned luster and excellent quality showed Diana supreme. She easily bested past-favorite Golden Crown, AAS winner Faerie and open-pollinated Golden Midget, her 10.3 Brix reading dwarfing Midget's anemic 7.4. Her 2.2 lb oval melons look as if their light skins were painted with bright yellow stripes. The crunchy texture, sweetness and complex flavor of her **red flesh**, unmarred by the small sparse seeds, won over our warehouse staff. Showed good productivity of 6 fruits from two hills in a poor melon year. Well named, shining with golden moonlight and definitely more divine than any other in this unique class. All seed is held over. ③

**A**=0.5g, $2.20 **B**=1g, $4.20 **C**=5g, $15.00

**1022MO Early Moonbeam OG** (78 days) Open-pollinated stabilized selection from Yellow Doll, one of breeder Alan Kapuler's notable successes in de-hybridizing hybrids. Kapuler retained most of Doll's strengths including earliness, icebox size (5–8 lb), sweet **yellow flesh** and colorful skin of dark green stripes on a greenish-white background, while sacrificing only a scintilla of uniformity and flavor. Brix reading of 9.9 at WSU trials. QCS-certified. ①

**A**=1/16oz, $1.70 **B**=1/4oz, $4.80 **C**=1/2oz, $8.00 **D**=1oz, $15.00

**1024OR Orange Orchid** (78 days) F-1 hybrid. Unwilling or unable to wait out **991** Orangeglo's long 90-day season or cope with its formidable size? For a smaller, more marketable alternative Orange Orchid provides reliable early production of refined 6-8 lb oblong fruits. "Double-O" brought us **bright orange flesh** with crisp texture and super sweet floral flavor without any hint of the internal hollow heart that can plague orange-fleshed watermelons. Medium light green rind with dark green striping. Ripened Aug. 29, 2013 for Heron Breen from a late June 12 transplanting. Mine, started later in 2014, ripened mid-September, checking in at 8.25 lb, the best I have grown in six years at Colrain in my watermelon-averse sandy loam. All seed is held over. ③

**A**=1g, $2.00 **B**=3g, $5.60 **C**=15g, $26.00

**1028SO Sugar Baby OG** (80 days) Open-pollinated. The first of its genre and still the standard northern icebox watermelon. Among the earliest in its class, Sugar Baby grows 8–10 lb fruits, dark green outside and **deep red** inside. Discovered in a field of picnic watermelons by M. Hardin of Geary, OK, in 1955 and introduced by the Woodside Seed Co. Still prized by those who prefer their watermelons open-pollinated and of modest size, although its flesh quality is grainier than the pricey supermarket mini-melons. OT, CCOF-certified. ③④

**A**=1/16oz, $1.20 **B**=1/4oz, $3.00
**C**=1/2oz, $5.50 **D**=1lb, $60.00

**1032CS Cream of Saskatchewan** (80 days) Open-pollinated. "Of all the cool climate melons I've grown in Oregon, Maine and Wisconsin, this takes the cake, not just sweet but real character and flavor." With his background in cucurbits, plant breeder John Navazio knows a good melon when he tastes one. He gave me my first taste many years ago and I've prized these sweet juicy melons with **cream-colored flesh** and abundant seeds ever since. Sweet and cooling on a hot day, these round 6–10 lb fruits are light green with dark stripes with thin brittle skin prone to split. Heirloom said to have originated in the Ukraine, brought to Saskatchewan by immigrants early in the 20th century. ③

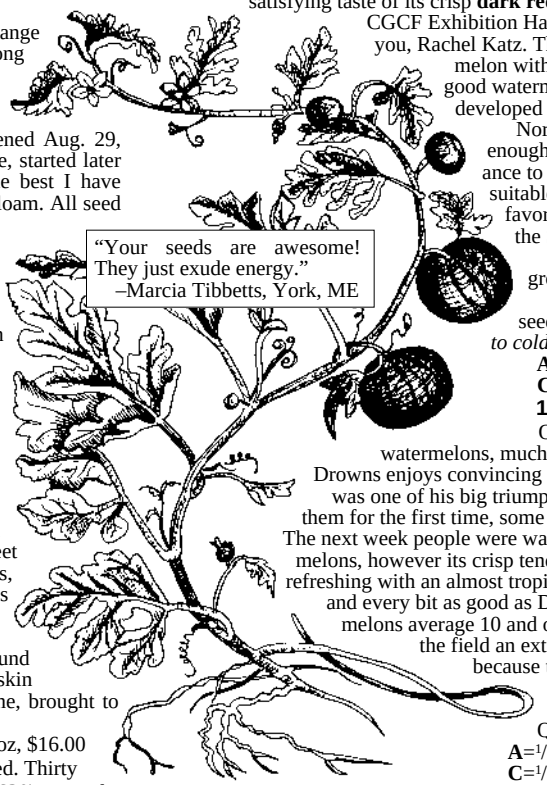
**A**=1/16oz, $1.60 **B**=1/4oz, $5.00 **C**=1/2oz, $9.00 **D**=1oz, $16.00

**1035DO Sweet Dakota Rose OG** (82 days) Open-pollinated. Thirty years ago David Podoll (of Dakota Dessert Squash fame, see **1630**) crossed the small early-maturing Early Canada with the enormous late-maturing Black Diamond to create this intermediate 8–12 lb delight, skin light green with dark green stripes. A star in my 2007 trials, it matured early and produced 2–3 fruits per plant. One of the sweetest open-pollinated **red-fleshed** watermelons we know, it has a thin skin, few seeds and stores longer than most others. A strong watermelon flavor complements its sugar rush. All seed is held over. ICS -certified. Ω ①

**A**=1/16oz, $2.20 **B**=1/4oz, $6.60 **C**=1/2oz, $12.00 **D**=2oz, $36.00

**1039DS Dark Star** (83 days) F-1 hybrid. "Much better than Jade Star or Blacktail Mountain," says Janine Welsby who harvested several in the 15 lb range. Our trialers agree, rating it as having larger size, darker **red interior flesh** and substantially better flavor than Seminis/Monsanto's Jade Star. Dark's high-yielding dark glossy round 10–15 lb fruits feature crisp bright juicy flesh, sweet right down to the rind, and small black unobtrusive seeds. All seed is held over. ③

**A**=1g, $1.90 **B**=3g, $4.80 **C**=15g, $18.00



"Your seeds are awesome! They just exude energy."
–Marcia Tibbetts, York, ME

**1042QZ Quetzali** (85 days) Open-pollinated. Sweet (tested 9.7% sugars at WSU trials) with some substance. Ripens 9–12 lb fruits with dark-green skin splotched with lime-green sponge prints. Even more attractive on the inside where the dense **pink flesh** is almost seedless! *Caution: Requires a sharp knife, strong wrist and sure stroke to cut open its skin.* Resists ANTH1. We cannot ship to South Carolina. PVP. ⑥

**A**=1/16oz, $1.70 **B**=1/4oz, $4.80 **C**=1/2oz, $8.00 **D**=2oz, $22.00

**1046SW Sunsweet** (85 days) Open-pollinated. Though it loves warm locales, Sunsweet is adapted almost anywhere. Our melon trialers in central Maine have harvested two 20 lb fruits per plant. They report it outproduces hybrid Sweet Favorite and is earlier and bigger than hybrid Sangria. We recommend this large oval watermelon for glorious **red** sweet juicy delectable treats. Skin dark green with broken light green stripes. All seed is held over. Resistant to ANTH and F. No sales to South Carolina. PVP. ⑥

**A**=1/16oz, $1.70 **B**=1/4oz, $4.80 **C**=1/2oz, $8.00 **D**=2oz, $22.00

**1052SF Sweet Favorite** (86 days) F-1 hybrid. 1978 AAS from Sakata. One of the best oblong watermelons for the North. Consistently produces 10–13 lb fruits with sweet **bright red flesh**. Green skin with dark stripes. Margaret Liebman of Southpaw Farm in Unity, ME, grew some 20-pounders in 2013. In Ohio, Janine Welsby set a personal record with a 28.5 lb melon in 2011 and harvested over 300 lb of melons from 9 plants. "So sweet and juicy," she raved. Brix rating of 10.5 at WSU. Tolerant to ANTH and F. ⑤

**A**=1g, $2.00 **B**=3g, $5.60 **C**=15g, $26.00

**1056SG Sangria** (88 days) F-1 hybrid. The sweetest (as much as 12–14% sugars in some tests) juiciest watermelon in our trials. These elongated ovals average 10–12 lb with dark green skin broken by light green stripes. Bright refined **red flesh** will satisfy the most avid sugar seekers. Sangria, the first hybrid Allsweet type ever developed, has been a big hit on the market. All seed is held over. Cannot ship to South Carolina. Tolerant to some races of ANTH and F. *Caution: May not ripen in northern areas with insufficient heat to grow big watermelons*. ⑥

**A**=1g, $2.50 **B**=3g, $6.50 **C**=15g, $32.00

**1063CO Crimson Sweet OG** (90 days) Open-pollinated. The deeply satisfying taste of its crisp **dark red** very sweet **flesh** brought my 2014 CGCF Exhibition Hall talk to a fitting conclusion. Thank you, Rachel Katz. This almost-round 10x12" light green melon with bold dark green stripes has defined good watermelon eating since 1964 when it was developed by Dr. C.V. Hall of Kansas State U. Normally for growers in climates warm enough to grow a 25 lb watermelon. Tolerance to ANTH1,3 and F1,2 and a thick skin suitable for shipping make it a commercial favorite in the Middle Atlantic states and the Southeast. 9.9% Brix at WSU trials. Vigorous vines. Pam Dawling who grows seed for it says 22 melons yield 1 lb of seed. 1978 AAS winner. All seed is held over. *Caution: not adapted to cold northern areas.* CCOF-certified. ③

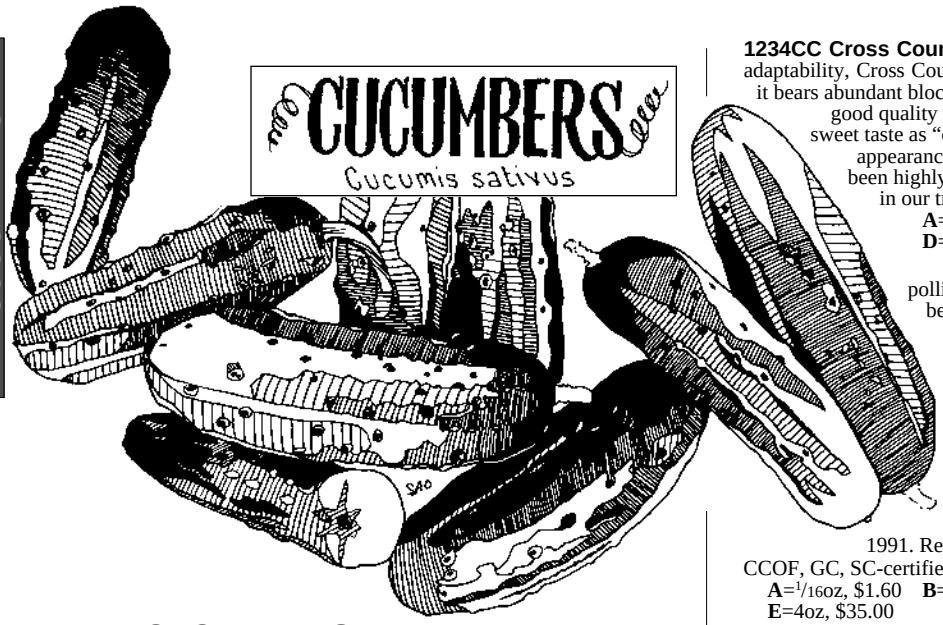
**A**=1/16oz, $1.20 **B**=1/4oz, $3.00
**C**=1/2oz, $5.50 **D**=1lb, $60.00

**1067GO Orangeglo OG** (90 days) Open-pollinated. The most orange of watermelons, much favored by Glenn Drowns. Like us, Drowns enjoys convincing people to try new things. Orangeglo was one of his big triumphs at farmers market. When he took them for the first time, some folks even refused his free samples. The next week people were waiting in line. Not the sweetest of our melons, however its crisp tender **bright orange flesh** is juicy and refreshing with an almost tropical flavor. Adapted to the Northeast and every bit as good as Drowns promised, the striped oblong melons average 10 and often achieve 15 lb. Let them stay in the field an extra few days when the stem is drying because they reach full sweetness only when completely ripe. Large, plentiful seeds. WSU Brix rating of 10.7%. QCS-certified. ①

**A**=1/16oz, $2.10 **B**=1/4oz, $6.00
**C**=1/2oz, $11.00 **D**=1oz, $18.00

**1072MO Moon and Stars OG** (100 days) Open-pollinated. Once feared extinct, this now-famous unique watermelon became a cause célèbre for the Seed Savers Exchange. Released by Peter Henderson & Co. as Sun, Moon and Stars in 1926, it was popular in the '30s before fading into obscurity for almost fifty years. Seed Savers Exchange co-founder Kent Whealy found it again in 1981 after a four-year search and his son Aaron supplied us with our original seed. Because it needs a lot of heat to set fruit, it poses a challenge worthy of the Maine melon-grower's mettle. Despite low degree days this summer, some of Kafka's finished for the first time in four years. Dark green skin has beautiful yellow spots which range in size from little peas (the stars) to a silver dollar or larger (the moon). Spotted foliage, actually a product of a virus found in the breeding lines, looks unhealthy to the uninitiated. Sweet (9.7% Brix) somewhat grainy **pink flesh**, and such a looker! CCOF-certified. ③

**A**=1/16oz, $1.70 **B**=1/4oz, $5.20 **C**=1/2oz, $9.50 **D**=2oz, $25.00




## CUCUMBERS *Cucumis sativus*

**1/16 oz packet sows 11 ft; 1 oz, about 180 ft. About 35 seeds/g, 1/16 oz packet avg. 65 seeds, 1,000 seeds/oz.**

**Culture:** May be started indoors for early production, or direct-seeded. Very tender, will not survive frost. Direct seed 3" apart in rows 4-6' apart or 6 per mound in hills 4' apart thinning to 3 best plants. Transplant 1' apart in rows 4-6' apart. Cucumbers require good fertility and regular rain or irrigation for abundant yields. Without adequate water fruits will be misshapen and bitter. Combat striped cucumber beetles by handpicking early AM when the dew makes them sluggish, or use floating row covers, removing when cukes flower. Pick frequently for best production, making sure to remove blimps to the compost pile.

Using compost in conjunction with row covers (rather than either alone) increased cucumber yields at the University of Michigan.

Parthenocarpic varieties (**1239**, **1392**) can set fruit without being pollinated, an advantage in cold cloudy summers. Gynoecious varieties (**1232**, **1328)** produce almost exclusively female flowers for uniformity and high yields.

Do not sow in cold soil. Minimum germination temperature 60˚, optimal range 65–95˚, optimal temperature 90˚, emergence takes 13 days at 59˚, 6 days at 68˚, 4 days at 77˚.

**Days to maturity are from direct seeding**, except where noted**.**

**Diseases:**

| | |
|---|---|
| ALS | Alternaria Leaf Spot |
| ANTH | Anthracnose |
| BW | Bacterial Wilt |
| CMV | Cucumber Mosaic Virus |
| DM | Downy Mildew |
| PM | Powdery Mildew |
| PRSV | Papaya Ring Spot Virus |
| R | Rust |
| WMV | Watermelon Mosaic Virus |
| ZYMV | Zucchini Yellows Mosaic Virus |

### PICKLING

At 9 lb of pickles consumed per capita, Americans down 26 billion of them per year.

**de Bourbonne** (50 days) Crop had unsatisfactory germ and supplier is discontinuing variety. We are trialing for a replacement. *No longer available.*

**1226NL National** (52 days) Open-pollinated. Introduced in 1929, the result of a 5-year collaboration between the National Pickle Packers Association and the Michigan Agricultural Experiment Station. Suitable for both small pickles and dills. Not quite as early as Northern Pickler, but tending to hold quality over a longer season, the firm black-spined dark green fruits are usually quite sweet, rarely bitter. Plants are vigorous dependable producers. Resists CMV and scab. ②

**A**=1/16oz, $1.00 **B**=1/4oz, $1.60 **C**=1/2oz, $2.80 **D**=1oz, $4.50
**E**=4oz, $11.00 **K**=1lb, $29.00

**1232CS Calypso** (52 days) Heavy-yielding gynoecious hybrid developed by North Carolina State. Fruits medium-dark green with white spines. In a trial of 7 pickling varieties at Highmoor Farm, Calypso had the highest early yield. Using IRT mulch and irrigation, Adam Tomash and June Zellers grew 1,250 saleable fruits in 2010 from just 6 hills of 4 plants each. During peak production they harvested an average of 60 cukes per day. Tolerant to ANTH, ALS, CMV, DM, PM, resistant to scab. ②

**A**=1/16oz, $1.10 **B**=1/4oz, $2.00 **C**=1/2oz, $3.20 **D**=1oz, $5.50
**E**=4oz, $15.00 **K**=1lb, $40.00

**1234CC Cross Country** (52 days) F-1 hybrid. Named for its widespread adaptability, Cross Country goes the distance. The best pickler in our trials, it bears abundant blocky straight dark green white-spined fruit of uniformly good quality with very small seed cavities. Our trialer described its sweet taste as "crunchy and cool." Had good yields (5.5 lb per plant), appearance, and long uniform fruit in Highmoor Farm trial. Has been highly rated in brine tests. Resistant to scab, but susceptible in our trial to BW. Resistant to ANTH, ALS, PM and DM. ⑤

**A**=1/16oz, $1.60 **B**=1/4oz, $2.90 **C**=1/2oz, $5.50
**D**=1oz, $10.00 **E**=4oz, $30.00 **K**=1lb, $98.00

**1239LO Little Leaf H-19 OG** (60 days) An open-pollinated white-spined parthenocarpic cucumber that can be grown under row cover. Little Leaf sets fruit without pollination, so may be left covered the entire season. Compact vines with smaller-than-normal leaves save space and leave the mature cucumbers much more visible. Despite the plants' emaciated appearance, they produce a huge number of cukes, even under stress. The blocky fruits are a little smaller than what we were used to, but they serve a dual purpose, pickling well while also providing good fresh eating. Has become a big customer favorite. Bred in the Ozarks at the University of Arkansas and released in 1991. Resistant to ANTH, ALS, DM, CMV, PM, scab. PVP. CCOF, GC, SC-certified. ①

**A**=1/16oz, $1.60 **B**=1/4oz, $3.60 **C**=1/2oz, $6.50 **D**=1oz, $12.00
**E**=4oz, $35.00

**1243MG Mexican Sour Gherkin** (65 days) *Melothria scabra* Open-pollinated. Also known as Cucamelon or *Sandía de ratón* ('Mouse Watermelon' in Spanish), and Preserving Cucumber in France. Native to Mexico and Central America and a staple in diets there since pre-Columbian times. We love the unusual, so when we saw these darlings on exhibit at Common Ground Fair in 2004, we found them irresistible. So did the judges who gave them a coveted Judges' Award. Janet Winslow brought them back to the Hall in 2013 and calls them a "gateway" crop, meaning they inspire fairgoers to explore the diversity of available food crops. A rampant yet delicate scrambling vine covered with dozens of 1" green and white fruit that look like miniature watermelons but taste more like cucumbers with a crunchy texture and a slight sour zing as if they already had been pickled. Botanically, they are neither cucumber nor watermelon and won't cross with either. They don't bruise and they keep for a long time. Try them in stir fries, pickle them as gherkins, or add to salsas. Also popular among trendy bartenders. Easy to grow, and fun! Slightly more tolerant of cold than cukes, and more drought-resistant. Benefits from a fence or trellis so vines can climb 10'. About 350 seeds/g. ⑤

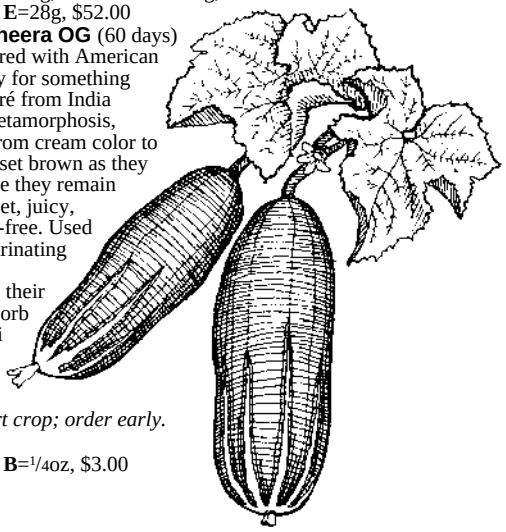
**A**=0.2g, $2.40

### SLICING

**1302MN Ministro** (49 days) F-1 hybrid. This sprinter is the Usain Bolt of the cucumber world and was the runaway best seller among new items in our 2013 catalog. Ripened for Donna Dyrek on July 15, 2012, a full 20 days ahead of Marketmore, even though she didn't set her transplants out until June 22. Vigorous plants with excellent cover bear high-quality cylindrical 8–9" monoecious fruits of the American slicer type, shiny and thin-skinned. Snappy and crispy, sweet and crunchy. They were still loaded with fruit and continuing to flower right into October. "I could go out and pick another mess now," reported Dyrek on Oct. 11. All seed is held over. Resistant to PRSV, WMV, ZYMV. ⑤

**A**=0.5g, $2.20 **B**=1g, $3.80 **C**=4g, $10.50
**D**=14g, $30.00 **E**=28g, $52.00

**1308PO Poona Kheera OG** (60 days) Open-pollinated. Bored with American cucumbers and ready for something different? This emigré from India undergoes quite a metamorphosis, 4–5" fruits turning from cream color to golden yellow to russet brown as they mature. At each stage they remain extremely crisp, sweet, juicy, refreshing and bitter-free. Used in stir-fries, long-marinating dishes, pickles and chutneys. They keep their crisp texture and absorb sauce flavors in Thai and Indian food. Vines vigorous, disease resistant and heavy yielding. *Short crop; order early.* OT-certified. ①



**A**=1/16oz, $1.60 **B**=1/4oz, $3.00

**Why don't you folks offer _____ ? (please fill in the blank)**
Can't find your favorite variety? Please send us your suggestions.
If possible, please identify your past source for the varieties.

**1311BO Boothby's Blonde OG** (63 days) Open-pollinated. Maine, famous for Moody's Diner and Moxie, also boasts a less well-known heirloom cucumber, maintained for five generations by the Boothby family of Livermore. Boothby's short plump oval fruits average 3–4" and become yellower as they mature. Creamy exteriors with contrasting black spines and juicy refreshing interiors. Larger seed cavities than most cukes, but the seeds actually add to the mild sweet flavor that makes the fruits so good for eating out of hand. Boothby's usually lacks the bitter aftertaste so common in many of the other white cukes we've trialed. Has the "cool" texture uncommon in American cukes. Boothby's goodwill ambassador Will Bonsall passed it on both to Pinetree Seeds and to us. All seed is held over. CCOF-certified. ①
**A**=0.5g, $1.00 **B**=2g, $2.50 **C**=4g, $4.00 **D**=16g, $12.00
**E**=64g, $28.00

**Marketmore 76** (63 days) Dr. Henry Munger's classic open-pollinated cucumber for the ages, long the leading slicing variety in the Northeast, still sells nearly 5,000 packets per year for us though it is offered by just about every seed purveyor on the planet. Dark green 8–8½" fruits show good uniformity. Vines vigorous throughout season. Tolerant to CMV, DM, PM, resistant to scab.

**1312MM Marketmore 76** ②
**A**=1/16oz, $1.00 **B**=1/4oz, $1.60 **C**=1/2oz, $2.80 **D**=1oz, $4.50
**E**=4oz, $11.00 **K**=1lb, $29.00

**1313MO Marketmore 76 OG** CCOF-certified. ③
**A**=1/16oz, $1.30 **B**=1/4oz, $2.20 **C**=1/2oz, $3.80 **D**=1oz, $7.00
**E**=4oz, $15.00 **K**=1lb, $46.00

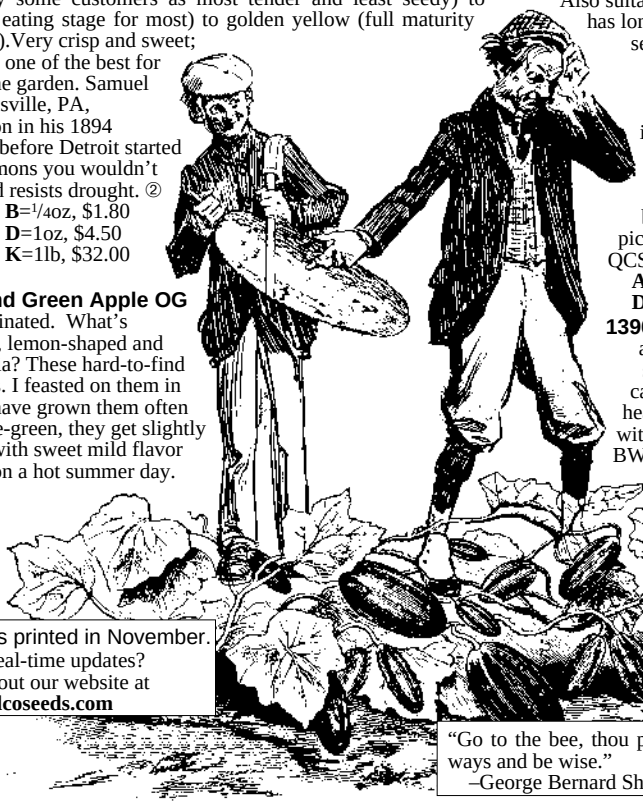
**1318SO Silver Slicer OG** (64 days) Open-pollinated. Just four pounds available of this superior Cornell University slicer that incorporates all of the good features of **1311** Boothby's Blonde in a better package. Longer (7–8") and slimmer (fairly narrow 1" core) than Boothby's with a creamy-white tender skin. Heavy set of buttery crunchy crisp fruits, neither watery nor ever bitter. Resists PM and keeps going till September. Seed for this variety is sold under a license and a portion of the proceeds goes to support public vegetable breeding at Cornell. *Order early or forget it till 2016!* OTCO, MOFGA-certified. ①
**A**=1/16oz, $1.80

**1328GL General Lee** (66 days) F-1 hybrid. Although the Confederate general fell a little short, this gynoecious General continues to conquer some Yankee gardeners and farmers. High yields of uniform straight dark-green white-spined 8–8½" slicers don't peter out in the halcyon days of summer. Doesn't develop yellow "bellies" and retains that good Sweet Salad flavor. From a May 13 direct seeding, my 2012 harvest began July 8 and continued into late August. Despite persistent drought, half the fruits were still of marketable quality in mid-August. Tolerant to scab, CMV, PM and DM. ⑤
**A**=1/16oz, $1.90 **B**=1/4oz, $4.40 **C**=1/2oz, $7.50 **D**=1oz, $13.50
**E**=4oz, $50.00 **K**=1lb, $185.00

**1372LM Lemon** (68 days) Open-pollinated. Would you buy a lemon from Fedco? A lot of people will buy this lemon beloved by salad chefs and backyard gardeners alike for its heavy yields of rounded 3" fruits shaped somewhat like lemons. Color evolves from pale greenish yellow (immature though preferred by some customers as most tender and least seedy) to lemon yellow (best eating stage for most) to golden yellow (full maturity and seed production).Very crisp and sweet; never gets bitter and one of the best for eating right out of the garden. Samuel Wilson of Mechanicsville, PA, introduced this lemon in his 1894 catalog, some years before Detroit started turning out some lemons you wouldn't buy. Tolerates R and resists drought. ②
**A**=1/16oz, $1.00 **B**=1/4oz, $1.80
**C**=1/2oz, $2.80 **D**=1oz, $4.50
**E**=4oz, $11.00 **K**=1lb, $32.00

**1375RO Richmond Green Apple OG** (70 days) Open-pollinated. What's refreshing and juicy, lemon-shaped and comes from Australia? These hard-to-find heirloom cucumbers. I feasted on them in my 2004 trials and have grown them often since. Beautiful lime-green, they get slightly larger than lemons with sweet mild flavor that really satisfies on a hot summer day. OT-certified. ①
**A**=1/16oz, $1.70
**B**=1/4oz, $3.80
**C**=1/2oz, $7.00
**D**=1oz, $11.50

Our catalog is printed in November.
Want real-time updates?
Check out our website at
**fedcoseeds.com**



"Go to the bee, thou poet; consider her ways and be wise."
–George Bernard Shaw

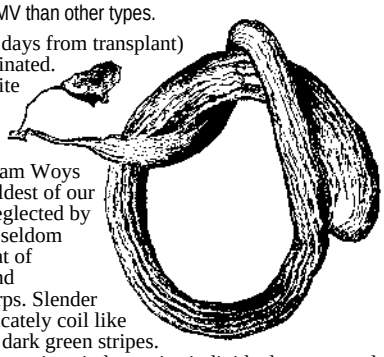
## BEIT-ALPHA TYPE

Descended from a vegetable that grows wild in the dry climate of the Middle East, the beit alpha was developed by breeders on an Israeli kibbutz. These small sweet-fleshed cucumbers were originally popular in the Mediterranean, spread to Europe and thence to the States. They don't dehydrate easily, their thin skins don't require peeling, they are almost completely burpless and have a long shelf life.

**1382SZ Super Zagross** (54 days) Open-pollinated. Green smooth-skinned fruits refreshingly cool, enjoyably mild and almost completely free of the bitterness quite common in American slicers. Zagross does not bear as heavy early sets as the hybrid Amira, but it sustains its cropping power longer, so the cukes will keep coming as long as you keep harvesting. Elaine Carlson makes succession plantings two weeks apart for "months of good eating. So thin-skinned, juicy and refreshing." ②
**A**=1/16oz, $1.50 **B**=1/4oz, $2.60 **C**=1/2oz, $4.80 **D**=1oz, $8.40
**E**=4oz, $25.00 **K**=1lb, $75.00

## LONG-FRUITED TYPES

Asian cukes are more resistant to CMV than other types.



**1388PS Painted Serpent** (55 days from transplant) *C. melo* var. *flexuosus* Open-pollinated. Bite into the snake that doesn't bite back. Also known as Armenian Cucumber or Snake Melon, native to Armenia and brought to Italy in the 15th century. William Woys Weaver says "this is one of the oldest of our heirlooms, yet one of the most neglected by our gardeners," oft exhibited but seldom eaten. Yet its flavor surpasses that of cucumbers, excelling in salads and stir fries without bitterness or burps. Slender slightly fuzzy flexuous fruits delicately coil like a serpent with alternate light and dark green stripes. Culture like the melon it is, starting indoors in individual pots and transplanting into a low tunnel. Will grow up to 30" but best eaten at 8–18". Straighter if trellised. Never grew well on my central Maine clay, but a prolific producer on my sandy Colrain, MA, soil. First ripe fruit was July 26 in 2010, later in subsequent cooler seasons. ③
**A**=1/16oz, $1.30 **B**=1/4oz, $2.20 **C**=1/2oz, $3.80 **D**=1oz, $7.00
**E**=4oz, $15.00 **K**=1lb, $50.00

**1390SC Shantung Suhyo Cross** (60 days) F-1 hybrid. Produces a plethora of uniform 12–14" never-bitter sweet-tasting cukes. Even in dry conditions the vines keep making quality fruits that never develop shrunken necks. Our cucumbers were very gracefully curved, although had we trellised them, they would have been straight. Seed comes from Japan and is very expensive. All seed is held over. Tolerant to DM, PM, CMV. ⑤
**A**=0.5g, $1.70 **B**=2g, $5.20 **C**=14g, $20.00 **D**=28g, $34.00

**1392TO Telegraph Improved European OG** (60 days) "A consistent performer in our greenhouse," related Michael Goldman of Florence, MA. Also suitable for growing outdoors, this open-pollinated European cucumber has long (10–14") slim smooth-skinned fruits of very delicate mild flavor, seldom bitter. Stake vines for better-quality straight cukes. Parthenocarpic. CCOF-certified. ③
**A**=1g, $1.70 **B**=4g, $5.20 **C**=16g, $16.00

**1394SO Suhyo Long OG** (61 days) Open-pollinated. Known for its sweet mild burpless flavor, this Asian cucumber grows up to 15" long with a curly shape if unsupported. For straighter fruit that packs better Jason Kafka grows these in his greenhouse in vertical hedges, stretching Trellis Plus netting (**9071** in the OGS section) between conduits. According to Tom Vigue these make good dense pickling cukes if picked young enough. Sets well in heat. Resists PM. QCS-certified. ①②
**A**=1g, $1.50 **B**=4g, $3.50 **C**=16g, $11.00
**D**=48g, $25.00

**1396KO Shintokiwa OG/BD** (62 days) Open-pollinated. Tom Vigue and Adam Tomash both highly recommend this productive smooth-skinned long slender cucumber that first surfaced in the Turtle Tree catalog. The hands-down winner at Tomash's trial, combining looks, health and flavor. Rated by Tomash as superior to the Suhyo cultivars with better uniformity, fewer defective bottoms and more resistance to BW. The fruits, averaging 9–10" and growing up to an edible size of 1' in good fertility, are sweet, crisp and juicy without bitterness. One trial taster described their flavor as "flowery, buttery and delicious." For really straight fruit, Tomash trellises his cukes by making a 5' arch out of cattle panel, a welded wire material with big holes. Tomash and his partner June Zellers explained their system in an article that appeared in the *MOF&G* winter 2008-9 edition. Google "In Search of the Perfect Tomato Trellis" for more information. Stellar NOP-certified. ①
**A**=1g, $1.70 **B**=4g, $5.00
**C**=16g, $15.00 **D**=48g, $33.00

## SUMMER SQUASH *Cucurbita pepo*

**Culture:** Tender, will not survive frost. Sow in hills 4 ft apart, 5 seeds/hill. Thin to 2–3 best plants. Floating row covers, especially when used in low tunnels, provide extra heat and can hasten maturity by 1 to 2 weeks. Male blossoms typically precede females by about a week. Females have a bulge at the base of the blossom, an early stage of the fruit forming. In early summer, a combination of cool, cloudy weather and declining bee populations may result in poor pollination causing low yields. Mites and colony collapse disorder have wiped out a high percentage of wild and domesticated honeybee colonies in the last 20 years, creating a real crisis for cucurbit growers. Leaving oversized squash shuts down production. Making succession plantings will ensure harvest through the entire frost-free season, insurance against powdery mildew and other diseases tiring old plants. Minimum germination temperature 60˚, optimal temperature range 70–90˚, optimal temperature 85˚. **Days to maturity are from direct seeding.**

**Taste:** Squash blossoms are a delicacy. Harvest male blossoms when fully open for salads or stuffing. Unless you want to stuff them, pick squash when they are small for best flavor.

**Pests & Diseases:** See the sidebars on pages 23 and 24 for additional information. To combat squash bugs without using pyrethrum or neem: Protect young plants with row covers. Striped cucumber beetles and squash bugs overwinter in squash residues so burn or haul these away at season's end rather than cold composting them. Squash bugs lay their brown-brick red egg clusters on the underside of the foliage, often next to the central vein. By hand-picking them in June and July, I reduced an endemic problem and almost completely eliminated squash bug damage. See the sidebar on page 23 for additional information.

PM Powdery Mildew
WMV Watermelon Mosaic Virus
ZYMV Zucchini Yellows Mosaic Virus

### ZUCCHINI

**1/8 oz packet sows 4–6 hills; 1 oz, 40 hills. 160–240 seeds/oz.** The term *zucchini*, which means 'little squash' in Italian, was not in common parlance until the late '30s. Squash expert Amy Goldman, author of *The Compleat Squash* (ISBN 1-57965-251-4), traces the first true zucchini to 1901 in Milan, but vegetable marrows and cocozelles, now called zucchini, are considerably older.

**1402EB Eight Ball** (40 days) F-1 hybrid. Noted squash seed grower Hollar did not have to hire Minnesota Fats as their publicity director to win an AAS for Eight Ball in 1999 and we're not hustling when we assert that Eight Ball deserved the award. Eight Ball has the sweetness and squash flavor previously missing from round zucchini. The plant's open bush habit should please both home and market growers. Its earliness might well give you your first ripe squash of the season. They'll keep coming, too, till they run your table! Yes, the attractive shiny speckled dark fruits are mature when they're just a little bigger than pool balls. One customer reports oversized Eight Balls will turn orange and make great fall decorations. ②
**A**=1/8oz, $2.10 **B**=1/4oz, $4.00 **C**=1/2oz, $7.60 **D**=1oz, $14.50
**E**=4oz, $55.00 **K**=1lb, $195.00

**1404JP Jackpot** (42 days) F-1 hybrid from Hollar. Produces high yields of long medium-dark green lightly speckled fruits slightly ridged near the stem. In my first trial I harvested 59 fruits from just two hills. Open plant habit features a long single-stem bush with few spines. Continuous production of firm 6 1/2" zukes, tender, mild and sweet. Take these to market and win the jackpot. ②
**A**=1/8oz, $1.70 **B**=1/4oz, $3.00 **C**=1/2oz, $5.50 **D**=1oz, $9.00
**E**=4oz, $28.00 **K**=1lb, $105.00

**1406SB Spineless Beauty** (46 days) F-1 hybrid. In zucchini, unlike in politics, spinelessness is a virtue; when you harvest Spineless Beauty your hands will never itch. (And your palms won't itch either, unless you go into politics!) The 7 1/2x1 1/2" medium-dark green fruits of the Ambassador type are borne on open plants with spineless petioles. A standout in Sam Birch's and Highmoor Farm's summer squash trials. All seed is held over. ⑥
**A**=1/8oz, $1.80 **B**=1/4oz, $3.50 **C**=1/2oz, $6.50 **D**=1oz, $12.00
**E**=4oz, $40.00 **K**=1lb, $140.00

Do we sell graded seed? While the open-pollinated varieties we offer are almost never graded, we do receive graded seed for some of the hybrids, particularly in sweet corn, summer squash, brassica and pepper. Call our facilitators at (207) 426-9900 if you need specific information about seed size for a given hybrid variety, and we will help when we can.

**1407GA Golden Arrow** (46 days) F-1 hybrid. Our choice for a vigorous hybrid golden zucchini with no bitterness. These bright fruits started coming on June 27 from a May 13 sowing in 2012 and continued until a fierce army of squash bugs invaded in early August. Two plants generated 21 fruits in all. We loved Arrow's slender shape and vibrant color and the way its open plant habit made harvesting easy. Never quivering, this Arrow flies straight to the gold. *Order early; seed in short supply.* ⑤
**A**=1/16oz, $2.80 **B**=1/8oz, $5.40 **C**=1/4oz, $10.50

**1409RV Raven** (48 days) F-1 hybrid. Our best-selling zucchini for market growers. Raven sets the standard for dark zucchini. Its smooth-skinned glossy shapely greeny-black fruits make it the "prettiest of all zucchini, plant and fruit alike" to Anne Elder. Its merits go more than skin deep as research by Dr. John Navazio showed that Raven's dark pigmentation contains more of the antioxidant lutein than lighter-skinned varieties. Relatively early concentrated production so market growers can make succession plantings. Performs well even in poor squash years. ⑥
**A**=1/8oz, $2.00 **B**=1/4oz, $3.60 **C**=1/2oz, $6.20 **D**=1oz, $11.50
**E**=4oz, $42.00 **K**=1lb, $150.00

**1411BZ Black Zucchini** (50 days) Open-pollinated. A misnomer as Black Zucchini is not as dark as Raven but instead a very dark green. Perfect for home gardeners who are looking for an open-pollinated zucchini with superior flavor, but who don't require record-breaking yields. Also popular among some commercial growers. Brought from California in 1931 by the Jerome B. Rice Seed Co. of Cambridge, NY. Fruits of greenish-white firm tender flesh with small seed cavities are best picked around 6". The flavor was well above average in our taste tests. Open plant habit makes picking relatively easy. ②
**A**=1/8oz, 90¢ **B**=1/4oz, $1.60 **C**=1/2oz, $2.60 **D**=1oz, $4.00
**E**=4oz, $6.00 **K**=1lb, $17.00

**1424SE Sebring** (50 days) F-1 hybrid. A beautiful golden straight-sided cylindrical zucchini, relatively free of green tips, with open plant habit for easy harvesting. Averaged 17 baby fruits per plant or 6 mature fruits. Rated "very early" in the 2006 OSU trial. Showed some drought stress in early July 2012, producing misshapen fruits, but bounced back nicely. Resistant to PM. ②
**A**=1/8oz, $2.20 **B**=1/4oz, $4.30 **C**=1/2oz, $8.40 **D**=1oz, $15.00
**E**=4oz, $55.00 **K**=1lb, $195.00

**1434CZ Cocozelle** (53 days) Open-pollinated. Rich-flavored zucchini ribbed with light green stripes. This Italian heirloom was called *Cocozella di Napoli* in the 1800s. The term 'zucchini' was first used by California seed house Aggeler & Musser in 1921. ②
**A**=1/8oz, 90¢ **B**=1/4oz, $1.70 **C**=1/2oz, $3.00 **D**=1oz, $4.50
**E**=4oz, $6.50 **K**=1lb, $18.00

**1457CO Costata Romanesca OG** (60 days) Open-pollinated. Will Bonsall calls it "the only summer squash worth bothering with, unless you're just thirsty." Deeply striped and ribbed, Costata resembles Cocozelle, with a distinctive sweet mildly nutty flavor. Also a productive source for tasty male squash blossoms and good for stuffing even when the fruits get way oversized. Tender skin damages easily, a liability for commercial transport. Not as high yielding as hybrid varieties. If you want to win the blue ribbon for largest summer squash at your fair, grow Costata. It reaches 20 lb in a good year. CO-certified. ①
**A**=1/8oz, $1.50 **B**=1/4oz, $2.80 **C**=1/2oz, $5.00 **D**=1oz, $8.00
**E**=4oz, $24.00 **K**=1lb, $82.00

**1460TR Tromboncino** (60 days summer squash, 90 days winter squash) Open-pollinated. Also known as zucchini rampicante although, unlike other zucchini, a *moschata*. Tender, mild, sweet and nutty when harvested as summer squash at 8–12". Delicious steamed, grilled or sliced raw in salad. Italians use it in gnocchi and to stuff ravioli. When the green-tan fruits grow very long, they are best baked as winter squash. As might be inferred from its alias, its vines are rampant and should be trellised. "Out-tastes 95% of the Zuke pack," declares Garland, ME, grower Relentless. ②
**A**=1/8oz, $1.50 **B**=1/4oz, $2.80 **C**=1/2oz, $5.00
**D**=1oz, $8.00 **E**=4oz, $24.00 **K**=1lb, $82.00

## LEBANESE

**1/8 oz packet sows 5–8 hills; 1 oz, 40–60 hills. 200-320 seeds/oz.** Also called Mid-East or Cousa squashes, Lebanese types typically have white-mottled pale green skin and a blocky bulbous shape.

**1484AX Alexandria** (47 days) F-1 hybrid. This highly marketable Cousa was the first to produce and about the last to succumb in my PM-riddled 2014 summer-squash trial. Excellent early and late productivity with first fruit July 7 and last September 7. Strong plants with semi-erect single stems and an open habit for easy picking. My partner Eli, a critical evaluator of summer-squash flavor, loved them. Resists ZYMV, WMV and tolerates PM. ② **NEW!**

**A**=1/8oz, $2.40 **B**=1/4oz, $4.40 **C**=1/2oz, $8.00 **D**=1oz, $14.00
**E**=4oz, $50.00 **K**=1lb, $190.00

**1488WB White Bush** (50 days) Open-pollinated. These robust crawly bushes are amazing croppers; yielded 15 fruits per plant in our trial plot. Pick fruits when they are young and tender or allow them to fatten for stuffing. Marketers note: must be handled gently so not to scratch. Relentless says better than a hybrid in many ways: "Sublime taste and makes better pickled chips than cucumbers." "Firm and flavorful, not at all watery, scrumptious brushed with olive oil and grilled, then showered with minced basil and mint," advises Elaine Carlson. ②

**A**=1/8oz, 90¢ **B**=1/4oz, $1.70 **C**=1/2oz, $3.00 **D**=1oz, $4.50
**E**=4oz, $8.00 **K**=1lb, $18.00

## YELLOW

**1/8 oz packet sows 5–8 hills; 1 oz, 40–60 hills. 200-320 seeds/oz.**

**1504SF Saffron** (42 days) We're just mad about open-pollinated Saffron, a 4–6" yellow semi-crookneck that excelled in our trials and has developed a strong following among our customers. Less warty than straightneck squashes. Small single-stem bush with open structure but very large leaves gives good sunburn protection. They call it mellow yellow. ②

**A**=1/8oz, $1.00 **B**=1/4oz, $1.80 **C**=1/2oz, $3.40 **D**=1oz, $6.50
**E**=4oz, $12.50 **K**=1lb, $28.00

**1507GT Gentry** (43 days) Despite its name this F-1 hybrid crookneck is not just for the 1%. Though one upscale squash with its butter-yellow smooth skin, mild sweet delicious flavor, and impressive production even under stress, our price keeps it attainable for the 99%. Best harvested at 5–6". Our trialer called it "the perfect crookneck." Now if only we could rein in the corporate crooknecks, we might all realistically aspire to be gentry! All seed is held over. ⑥

**A**=1/8oz, $2.00 **B**=1/4oz, $3.60 **C**=1/2oz, $6.50 **D**=1oz, $12.50
**E**=4oz, $44.00 **K**=1lb, $155.00

**1512SP Slick Pik YS 26™** (48 days) F-1 hybrid. What is slick about this pick is its extreme earliness and its consistent prolific production of slim glossy-skinned 8" fruits. These have minimal bulges or swellings for their seed cavities, long straight necks and excellent flavor. Very attractive and spineless, too. They have resisted heavy cucumber and squash beetle pressure at Roberta's farm for many years and have always been the last to succumb to wilt. Another fine breeding coup by Brent Loy at the University of New Hampshire. ②

**A**=1/16oz, $2.30 **B**=1/8oz, $4.40 **C**=1/2oz, $12.50 **D**=1oz, $21.00
**E**=4oz, $72.00

**1520LO Lemon OG** (50 days) Open-pollinated. Fruits the size, shape and color of a lemon. Like miniature light bulbs (the old-fashioned kind) they proliferate on the compact plants that are rumored to have some resistance to the striped cucumber beetle. Very tasty fried and as a pizza topping. Great appeal at markets. Best flavor when very young. Roberta considers this a lemon if you allow fruits to get bigger than lemons. OT-certified. ①

**A**=1/8oz, $1.70 **B**=1/4oz, $3.00 **C**=1/2oz, $5.50 **D**=1oz, $10.00
**E**=4oz, $32.00

**1526ZP Zephyr** (54 days) F-1 hybrid. Its unique contrasting color pattern is as refreshing as the breeze evoked by its name. Looks like a yellow squash dipped in pale green at the blossom end. Sometimes earliest fruits are yellow with green stripes. A straightneck type often with a slight curve at its neck—the product of the yellow crookneck in its breeding. Also has yellow acorn and delicata squash in its background. Large plants with open habit are easy to harvest. Deborah Jaffe of Long Days Farm in S. Cambridge, NY, likes to sell baby Zephyrs by the pint. We prefer them at the 4–6" stage. Excellent grilled. Customers, particularly market growers, asked us for it ever since Johnny's introduced it in 1999. "Tastes great, produces #1 squash like crazy all summer and looks very pretty," summed one. Feel the breeze! ③

**A**=1/16oz, $2.80 **B**=1/8oz, $5.40 **C**=1/4oz, $10.00 **D**=1oz, $22.00
**E**=4oz, $85.00

**1539CO Early Summer Yellow Crookneck OG** (58 days) Open-pollinated. Deep yellow warted fruits with bulbous shape and narrow curved necks. Best when picked young. Probably grown by Native Americans. Dates to 1700 and a standard in early 19th century American seed catalogs. The 1888 Burpee catalog rather uncomplimentarily described it as "covered with warty excrescences" but called the flavor "excellent." Burpee charged a nickel for a packet, a dime for an ounce, and 75¢ per pound. CCOF-certified. ③

**A**=1/8oz, $1.50 **B**=1/4oz, $2.80 **C**=1/2oz, $5.00 **D**=1oz, $8.00
**E**=4oz, $17.00 **K**=1lb, $56.00

## PATTY PAN

**1/8 oz packet sows 5–8 hills; 1 oz, 40–60 hills. 200-320 seeds/oz.** Gourmets call patty pans "scallopini" and consider them the most appetizing of the summer squashes. Were also known as simlins or cymlings a century ago.
**Culture:** Harvest as tiny buttons or up to fist size.

**1577YO Y-Star OG** (48 days) F-1 hybrid. A new color and new earliness for patty pan squash. Bright yellow uniform scallops with pale green stars on the blossom end. Harvested small, they are quite sweet and tender, their open plant habit with minimal spines making them extremely easy to gather. Y-Star really pumps out the fruits over an extended period. In 2010, Donna Dyrek's first ripened July 18, a full two weeks ahead of Benning's, and they kept coming right till the end. AGRIOR-certified. ③

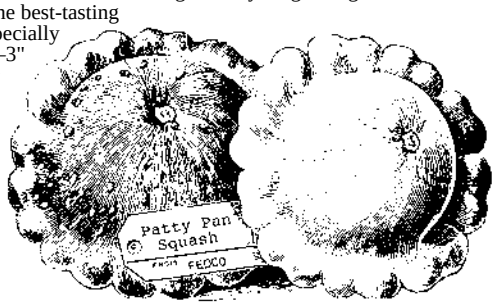
**A**=1/16oz, $2.90 **B**=1/8oz, $5.60 **C**=1/4oz, $10.00 **D**=1oz, $35.00
**E**=4oz, $135.00

**1580SN Sunburst** (52 days) F-1 hybrid. Among the most attractive of the Patty Pans with its bright yellow skin, a staple for market growers since winning the 1985 AAS. "Last one still standing," says Anne Elder, "when all else has gone by the wayside of powdery mildew and cold temperatures." ⑥

**A**=1/8oz, $2.40 **B**=1/4oz, $4.50 **C**=1/2oz, $8.20 **D**=1oz, $14.00
**E**=4oz, $52.00 **K**=1lb, $195.00

**1590BG Benning's Green Tint** (55 days) Open-pollinated. Also known as Farr's White Bush, developed by Charles N. Farr and introduced in 1914 by F.W. Bolgiano & Co. of Washington, DC. Farr selected for the uniform scallops and the greenish-cream coloring in the younger stages of the fruits. Rated by many as the best-tasting summer squash, especially if picked small at 2–3" diameter when they are especially fine-textured and tender. ②

**A**=1/8oz, 90¢
**B**=1/4oz, $1.70
**C**=1/2oz, $3.00
**D**=1oz, $5.00
**E**=4oz, $8.00
**K**=1lb, $25.00




**Long Bitter Melon** (70 days from transplant) *Momordica charantia*
Supplier has dropped; *no longer available.*

Pest: Striped Cucumber Beetle
Cultural controls: use tolerant or resistant varieties, rotate crops, till under crop debris soon after harvest, use floating row covers (**9101**) or insect netting (**9080-2**) until flowers appear, use plastic mulch (**9091**), perimeter trap cropping (**1411** Black Zucchini and **1655** Blue Hubbard make particularly good trap crops), use yellow sticky strip (**8830**), hand-pick early morning when beetles are very sluggish.
Materials: Surround (**8870**), Pyrethrum (PyGanic **8925**), Mycotrol O (**8898**).

Pest: Squash Bug
Cultural controls: rotation, till in cucurbit debris before winter and plant a cover crop, boards on soil surface near squash will attract bugs overnight which can be killed, destroy egg clusters on undersides of leaves, avoid mulching.
Materials: Pyrethrum on young nymphs, Neem.

Pest: Squash Vine Borer
Cultural controls: butternut squash is resistant, *maximas* & *pepos* susceptible; rotation, plow in squash vine debris soon after harvest, use floating row covers (**9101**), watch for wilting plant parts and destroy borer within.

# WINTER SQUASH

Winter squash is organized by species and common groupings.

*Cucurbita pepo:*
1600-1610 Acorns
1611-1614 Delicata/Dumplings
1615-1616 Spaghettis
*Cucurbita maxima:*
1617-1619 Bananas
1620-1649 Buttercup/Kabochas
1650-1659 Hubbards
1660-1679 Miscellaneous *maxima*
*Cucurbita moschata:*
1680-1689 Butternuts
1690-1699 Miscellaneous *moschata*

**All open-pollinated except where noted.**

**Culture:** May be direct-seeded or transplanted. Direct seeding: Sow 4–5 seeds per hill when weather has warmed after danger of frost. Allow 4–6 feet between hills. Thin to 3 best plants. Use row covers and low tunnels to hasten maturity and reduce insect damage. Transplanting: Start indoors three weeks before setting out. Do not disturb the roots. Transplant bush varieties 18" apart, vining varieties 30" apart. Tender, not frost hardy. Heavy nitrogen feeders. Excessive heat and/or drought can prevent blossom set, reduce yields. Winter squash can take one or two light frosts on the vine. To improve flavor and storage, field cure for at least 10 days after harvest, covering if hard frost threatens. Store under proper conditions, at least 50˚ and 60–70% relative humidity in a place with good air circulation. Do not pile up squash. Inspect periodically and be sure to use damaged, stemless or small fruit first. Acorns have the shortest storage time before getting stringy, followed by delicatas, buttercup/kabochas. Minimum germination temperature 60˚, optimal temperature range 70–90˚, optimal temperature 85˚.

**Days to maturity are from direct seeding.**

**Pests & diseases:** See the sidebars below right and on pages 23.

BLR Black Rot
PM Powdery Mildew

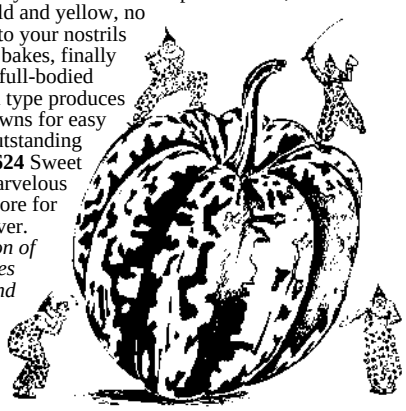
## *CUCURBITA PEPO*

One of the oldest domesticated species. Pepo derives from the Greek *pepon*, meaning 'ripened by the sun.' They have hard 5-sided ribbed stems, and fruits are usually ribbed. They also include summer squashes and small gourds, as well as miniature pumpkins **1702**-**1705**, pie pumpkins **1711**, **1718**-**1723**, intermediate pumpkins **1708** and **1729**, jack-o'-lanterns **1710**, **1748**-**1752**.

### Acorn group

**~280 seeds/oz, 1/8 oz packet sows 7 hills**. Dr. Loy found that acorn squash often are not fully ripe even when they attain full size and color. They continue to develop sugars until 45 days after pollination. Do not harvest until most of the fruits display an orange ground spot. Much of their reputation for watery, fibrous, inconsistent eating quality is probably the result of premature harvesting.

**1605CV Carnival** (85 days) F-1 hybrid. Carnival will give your senses a thrilling ride: first treating your eyes to a kaleidoscope of colors, each fruit flecked with shades of green, gold and yellow, no two exactly alike. Then wafting to your nostrils with its nutty squash aroma as it bakes, finally thrilling your taste buds with its full-bodied sweetness. This semi-bush acorn type produces medium-sized fruits near the crowns for easy picking. Jason Kafka reported outstanding success growing Carnival and **1624** Sweet Mama on landscape fabric. A marvelous seller at farmers markets. Will store for many months. All seed is held over. *Note: color variation is a function of temperature. In high temperatures Carnival will have less yellow and gold and more green.* ⑤



**A**=1/8oz, $2.40
**B**=1/4oz, $4.60
**C**=1/2oz, $8.80
**D**=1oz, $16.00
**E**=4oz, $60.00
**K**=1lb, $220.00

**1608TQ Table Queen** (90 days) Black-green ribbed 1 1/2–2 lb fruits good for baking. Dry flesh is best eaten within 3–4 months after harvest. Introduced by the Iowa Seed Co. in 1913 and once known as Des Moines, Queen began a trend away from monster squashes in favor of smaller fruits. A similar squash was grown by the Arikara tribe in North Dakota. ②

**A**=1/4oz, $1.00 **B**=1/2oz, $1.80 **C**=1oz, $3.20 **D**=4oz, $7.50
**E**=1lb, $23.00 **K**=5lb, $110.00

**1609SO Sweet REBA OG** (90 days) REBA stands for Resistant Early Bush Acorn. If you are acorn-averse, try REBA because this Cornell release is one of the sweetest acorns, flesh dry and substantial. Despite compact bush habit, heavy yields of 1–1 1/2 lb fruit. Welsby harvested 25 squash from four plants. They sold so fast that she didn't get to try one "but everyone said they were delicious." Resists PM, helping sugars to develop. VOF-certified. ③

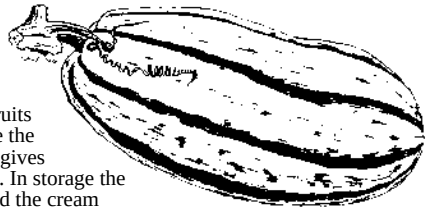
**A**=1/8oz, $2.30 **B**=1/4oz, $4.40 **C**=1/2oz, $8.00 **D**=1oz, $15.00
**E**=4oz, $55.00

**Paydon OG** (105 days) No new crop. *Not available in 2015.*

### Delicata/Dumpling group

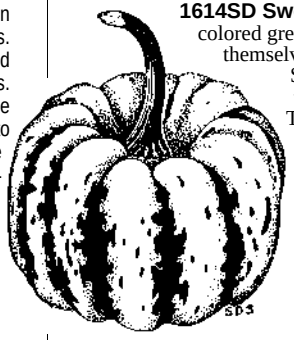
**~450 seeds/oz. 1/8 oz packet sows 4 hills.**

**1611ZO Zeppelin Delicata OG** (100 days) Zeppelin is good Delicata, from an old strain that was not affected when the trade allowed this beloved 1894 heirloom to be crossed by desert gourds. The lovely ivory-colored oblong 1 lb fruits with dark green stripes have the unsurpassed sweetness that gives Delicata its good reputation. In storage the green stripes turn orange and the cream background sometimes yellows. OT-certified. ①



**A**=1/8oz, $1.90 **B**=1/4oz, $3.60 **C**=1/2oz, $6.50 **D**=1oz, $12.50
**E**=4oz, $33.00 **K**=1lb, $120.00

**1614SD Sweet Dumpling** (100 days) Stunning 1–1 1/2 lb ivory-colored green-striped fruits shaped like miniature pumpkins sell themselves on the stand. *New York Times* food writer Regina Schrambling calls them the "avocados of squash" for their inherent buttery richness and sweet-tangy taste. To experience its sweet dry and memorably rich deep orange flesh, make sure your Dumpling is ripe. Introduced by Sakata Seed Corp. of Yokohama, Japan, in 1976 and marketed as Vegetable Gourd. Sold better after they changed its name to the more appealing Sweet Dumpling. ③



**A**=1/8oz, $1.30 **B**=1/4oz, $2.40
**C**=1/2oz, $4.00 **D**=1oz, $6.50
**E**=4oz, $16.00 **K**=1lb, $45.00

"Written descriptions are far more valuable [than glossy photographs]. The anecdotal info is the best!"
–Therese Spies, Phoenicia, NY

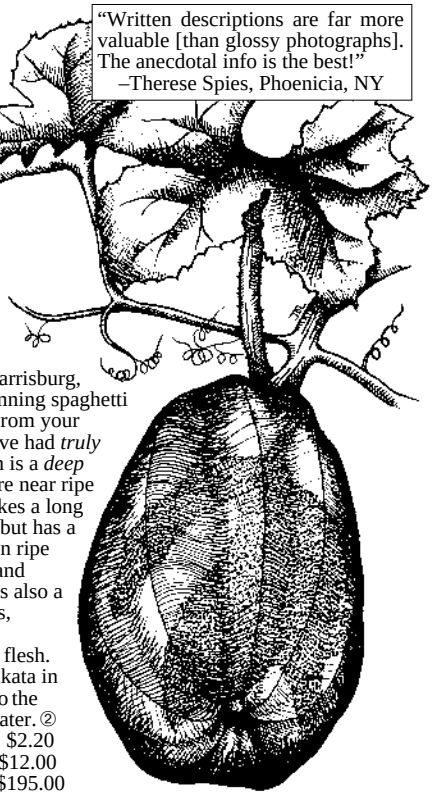
"Leave out the 'cutesy' in your descriptions. All I want is the pertinent info but have to wade through too much nonsense."
–Kay Gustin, Troy, PA

### Spaghetti group

**~190 seeds/oz.**
**1/8 oz packet sows 5 hills.**

**Squisito OG** (87 days) Regret *not available in 2015.*

**1616SP Spaghetti** (88 days) Penny Kupinski of Harrisburg, MO, took us to task for damning spaghetti squash with faint praise. "From your description you may not have had *truly ripe* spaghetti squash which is a *deep* gold. Pale yellow is nowhere near ripe and tasteless and tough. Takes a long time to mature even here…but has a wonderful nutty flavor when ripe and needs only a little salt and pepper to be excellent…It is also a great keeper." Oblong fruits, generally around 4 lb with spaghetti-like strings in the flesh. First commercialized by Sakata in Japan in 1934 and brought to the States by Burpee two years later. ②



**A**=1/4oz, $1.30 **B**=1/2oz, $2.20
**C**=1oz, $4.00 **D**=4oz, $12.00
**E**=1lb, $41.00 **K**=5lb, $195.00

Disease: Powdery Mildew
Controls: Use small plots to slow spread, plant indeterminate (viney) varieties, control weed competition.
Materials: sulfur (**8865**-**8**) and whole milk, mineral or other oils in combination with potassium bicarbonate, Actinovate (**8851**).

Disease: Bacterial Wilt
Cultural control: Striped Cucumber Beetle is vector—control it; choose resistant varieties.

## *CUCURBITA MAXIMA*

Green in stems signify immature fruit. Fat round stems turn corky and woody when the squash is ripe. Fruits tend to be medium to large and often have bumpy surfaces and button-ends. See also pumpkins: Lumina **1713**, Jarrahdale **1716**, Rouge Vif d'Etampes **1727** and Big Max **1757**.

### Banana group

**~125 seeds/oz. 1/8 oz packet sows 4 hills.**

**1617GB Guatemalan Blue** (95 days) Boasts an oh-so-smooth flesh texture that goes down easily and a stick-to-the-ribs heartiness that warms and satisfies on a chilly autumnal night. Heirloom from Guatemala sets 5x15" banana-shaped bluish-green fruits with slight striping. My two, grown in the heat of 2012, were ripe in mid-late August. I had one at each end of its 5–10 lb spectrum. Good keeper with thick firm moist yellow not overly sweet flesh. ②

**A**=1/8oz, $1.90 **B**=1/4oz, $3.60 **C**=1/2oz, $6.50 **D**=1oz, $11.00

**1618SB Sibley** (100 days) Also known as Pike's Peak. Among the very best for flavor, this once-revered brown-seeded heirloom first surfaced in the Missouri River watershed in the 1830s and is similar to kindred varieties found among the Winnebago Indians. Our original seed crop was from Hiram Sibley, whose great-great-great-grandfather of the same name introduced it to commerce in 1887 through his seed company in Rochester, NY. Present-day Hiram has been growing it in Maine in recent years, selecting for trueness to type, taste and adaptability, and providing us with our stock seed. Vigorous 12–15' vines produce slate-blue obpyriform 1' long fruit weighing 6–8 lb, once described by Michael Pollan as "pinched in both ends and bulging at the waist." Liberty, ME, gardener Jake Kennedy adds that these fetching fruits resemble baby seals hauled up on a ledge. Famous New England seedsman James J.H. Gregory called it "magnificent" and Goldman rates it "the best of the bananas," a group she calls "top tier." Ours was rich, moist, flavorful and sweet, though we sampled it in October, too soon. The quintessential storage squash, not coming into its own until January after its orange flesh has dried and sweetened. Brought on board the Slow Food Ark of Taste. ①

**A**=1/8oz, $1.90 **B**=1/4oz, $3.60 **C**=1/2oz, $6.50 **D**=1oz, $11.00
**E**=4oz, $32.00 **K**=1lb, $95.00

**1619PB Pink Banana** (105 days) Though fruits average "only" 14 lb, in good years an occasional squash can grow so huge that it inspires more jokes than even the massive zucchinis! As preposterous as its exaggerated banana shape and 5x18" dimensions may be, Banana boasts remarkably tasty moist sweet orange flesh. Offered by Aggeler & Musser Co. in 1893, it developed an underground following on the West Coast but has never been as widely grown in our parts. Though *not adapted to northern New England's cool summers*, has become a better choice as our climate warms. Don't pick until its stocky blunt stem is corky. Since it sometimes develops sunken spots that can lead to rot, be diligent in storage and use for Thanksgiving dinner or by early winter. ②

**A**=1/4oz, $1.30 **B**=1/2oz, $2.40 **C**=1oz, $4.50 **D**=4oz, $11.00
**E**=1lb, $36.00

### Buttercup/Kabocha group

**~160 seeds/oz. 1/8 oz packet sows 4 hills.** Buttercup squashes, the main type grown in the Northeast, account for about 19% of New England winter squash sales.

**1622BU Bush Buttercup** Emerald strain (80 days) Fruits generally a lighter green than Burgess Buttercup, not as uniform or good quality but ready two weeks earlier. Mostly bush habit saves space. Introduced 1952. ③

**A**=1/4oz, $1.50 **B**=1/2oz, $2.70 **C**=1oz, $5.00 **D**=4oz, $15.00
**E**=1lb, $55.00

**1624SM Sweet Mama** (88 days) F-1 hybrid. Mama is a grey-green drum-shaped buttercup type with rounded shoulders and without the cup. A week earlier than Burgess with outstanding sweet flavor. Among my favorite large winter squash, dependable Mama pleases commercial growers as well as home gardeners. 1979 AAS. ⑤

**A**=1/8oz, $2.60 **B**=1/4oz, $5.00 **C**=1/2oz, $9.20 **D**=1oz, $17.00
**E**=4oz, $65.00

**1626RK Red Kuri** (92 days) Also called Uchiki Kuri; *Kuri* means 'chestnut' in Japan. Growers admire its spectacular red-orange fruits, among the most attractive of all squashes. Its flavor elicits a wide range of comments from "the best winter squash" to "glorified zucchini, flavor like water." Liking the dry flesh of this Japanese squash, we think the truth lies somewhere in between. Very popular at roadside stands. Teardrop-shaped fruits avg 3–4 lb. Though reputed to be good keepers, their thin skins do not store well, according to members of one CSA. Also prized for the aroma of their blossoms when fried. ⑤

**A**=1/8oz, $2.40 **B**=1/4oz, $4.50 **C**=1/2oz, $8.50
**D**=1oz, $16.00 **E**=4oz, $42.00 **K**=1lb, $145.00

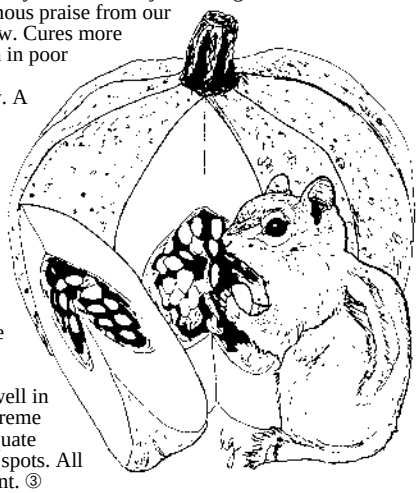
**1628BB Burgess Buttercup** (95 days) New England's favorite winter squash, enjoyed for its sweet deep-orange flesh. Fruits, with an acorn-shaped button on the blossom end and flattened shoulders, average 3–4 lb with about 4 per hill. Stem is well dried when ripe. The original buttercup strain showed up in 1925 as a chance cross between Quality and Essex Hybrid in the trial garden at North Dakota Agricultural Experiment Station. After further selection by famous seedsman Albert Yaeger, Oscar H. Will of Bismarck introduced it in his 1931 catalog. Alan Kapuler has said, "If you pick only one squash to grow this is it." ②

**A**=1/4oz, $1.40 **B**=1/2oz, $2.60 **C**=1oz, $5.00 **D**=4oz, $11.00
**E**=1lb, $38.00 **K**=5lb, $185.00

**1630DO Uncle David's Dakota Dessert OG** (95 days) David Podoll calls this strain "the original buttercup." It has been in his family for 70 years. They've been selecting it for 40 years, crossing it with hubbards and other *maximas*, primarily for color, taste, sweetness, and vigor and hardiness in cold weather, but also for thick flesh, small seed cavities and higher productivity. The Podoll family bake it into pies without using any other sweetener. Also a versatile main-dish squash, with all the character that makes buttercup a New England favorite. And it is one rugged buttercup, withstanding several cold summers and all the temperature extremes of recent seasons. ICS-certified. Ω ①

**A**=1/4oz, $1.90 **B**=1/2oz, $3.60 **C**=1oz, $7.00 **D**=4oz, $28.00
**E**=1lb, $105.00

**1633ER Eastern Rise** (95 days) F-1 hybrid. The #1 squash in China and the best-yielding hybrid in Heron Breen's trial, besting **1635** Sunshine and Confection. Featuring a creamy texture with just the right sweetness, Rise's heavenly flavor won unanimous praise from our feisty warehouse tasting crew. Cures more reliably than Sunshine, even in poor fall weather, with almost no spoilage until after February. A superb storage squash that comes into full flavor after December. Recommended for sales after the holidays. Average 3 1/2 lb fruits, attractive orange-red streaked with green, flattened large buttercups without the turban. Firm orange flesh with rich nutty flavor in perfect balance, the right sweetness, the right moistness, the right texture, smooth and hearty. Grows well in cool conditions; dislikes extreme heat. When grown in inadequate sunlight may develop green spots. All seed is held over. PM tolerant. ③



**A**=1/8oz, $2.60 **B**=1/4oz, $5.00 **C**=1/2oz, $9.50 **D**=1oz, $18.00
**E**=4oz, $65.00 **K**=1lb, $250.00

**1635SS Sunshine** (95 days) F-1 hybrid. Sunshine, Johnny's All-America winner combines the spectacular scarlet color of a Red Kuri with a sublime eating quality previously lacking in red squash. The bright orange flesh, dry yet tender, sweet yet meaty, has tested as high as Brix 15. While none of the Buttercup types is high yielding, these short-vined plants give a fair harvest of fruits shaped like a buttercup but with rounded shoulders and no turban. One year we had 14 averaging 4.4 lb each from just three hills. Rob Johnston says they derived Sunshine from a cross between two different orange varieties developed at Johnny's. Counting the 3 years needed to stockpile a sufficient seed supply, it required almost 20 years' labor. Good for fall sales and eating. Thin skins do not cure well in cold wet autumns and can be damaged around stems and shoulders by light frosts. Not recommended for storage after New Year. ③

**A**=1/8oz, $2.60 **B**=1/4oz, $5.00 **C**=1/2oz, $9.50 **D**=1oz, $18.00
**E**=4oz, $56.00 **K**=1lb, $210.00

**1637ND Nutty Delica** (95 days) F-1 hybrid. Mainers traditionally love the dry-fleshed squashes and after storage this may be the best of the Japanese Kabochas. Complex flavor of its deep golden flesh improves with age, peaking after January. Keeps until late spring. Incredibly sweet, slightly nutty flavor. Vines produce abundant 2–3 lb flattened round dark fruits stippled with bright green. Grows well in cool conditions. Suppler is discontinuing. Only a small quantity of heldover seed, which tested at 93%, remains. *Order early!* ⑤

**A**=1/8oz, $2.80

## Hubbard group

**~120 seeds/oz. 1/8 oz packet sows 3 hills.** James J.H. Gregory, who introduced hubbards to commerce around 1850, called them "the acme of perfection in squashdom," though they now account for only about 5% of New England winter squash sales.

**1654BB Baby Blue Hubbard** (95 days) For home gardeners with space limitations, a scaled-down version of **1655** Blue Hubbard developed at the University of New Hampshire from a 1953 cross between Blue Hubbard and Bush Buttercup. Baby Blue's vines are much more compact and its fruits much smaller (about 4–5 lb), but their flavor at maturity doesn't match up to those traditional large hubbards and their yield is lower, too. ③

**A**=1/8oz, $1.40 **B**=1/4oz, $2.50 **C**=1/2oz, $4.20 **D**=1oz, $7.50
**E**=4oz, $16.00 **K**=1lb, $55.00

**1655BH Blue Hubbard** New England strain (100 days) Introduced in 1909 by Gregory as Symmes Blue Hubbard, in honor of S.S. Symmes, a gardener who worked for his company for many years. Gregory considered it his best introduction, praising its flavor, productivity and storage qualities. The 1917 Gregory catalog said "close your eyes…and you would think you were eating cake." Bright yellow-orange dry sweet flesh. Each squash will feed a large family because fruits average 15–20 lb, sometimes exceeding 30 or 40 lb. Vines crawl all over the garden. Traditional New England Thanksgiving favorite. Prized also for its large white sweet seeds—delicious roasted. Blue Hubbard has proven effective as a perimeter trap crop for striped cucumber beetles. Completely encircle a main crop of other cucurbits with Hubbard vines, concentrating the pests in the border areas. ③

**A**=1/4oz, $1.20 **B**=1/2oz, $2.20 **C**=1oz, $4.00 **D**=4oz, $10.00
**E**=1lb, $32.00 **K**=5lb, $150.00

## Miscellaneous *Maxima*

**1665LS Lower Salmon River** (94 days) Another step forward in our rescue of this rare treasure from undeserved obscurity. It was once maintained by the old Abundant Life Seed Foundation before their sad fire. We nearly added it after my 2001 trial. It resurfaced in our 2009-10 winter taste test where it won plaudits from our staff for its thick tasty sweet orange flesh, superb for squash pie. Large salmon-pink pumpkin-like fruits, quite variable in size, averaged 7.5 lb in my trial. Among the best eating quality of any winter squashes. ① **BACK!**

**A**=1/8oz, $1.90 **B**=1/4oz, $3.60 **C**=1/2oz, $6.50 **D**=1oz, $12.00
**E**=4oz, $30.00

**1668SM Sweet Meat** (95 days) This tasty 12–15 lb slate-grey heirloom, shaped like a slightly flattened round pumpkin was maintained by an Oregon family for 100 years and sold by Gill Bros. of Portland, OR. It has long had a loyal following in the West. Now its fame is spreading east. Its dry sweet nutty thick orange flesh improves in storage with a flavor similar to **1655** Blue Hubbard. ③

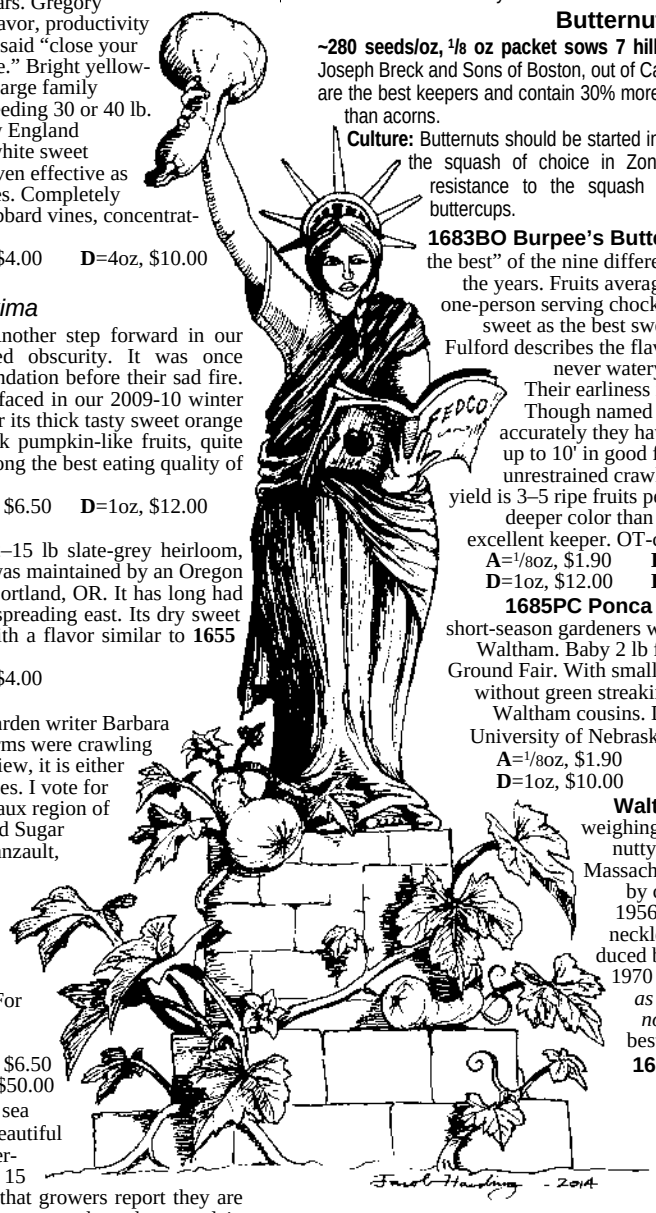
**A**=1/4oz, $1.20 **B**=1/2oz, $2.20 **C**=1oz, $4.00
**D**=4oz, $10.00 **E**=1lb, $28.00

**1672GO Galeux d'Eysines OG** (98 days) Garden writer Barbara Damrosch says "it looks as if peanut-shaped worms were crawling about its surface." Depending on your point of view, it is either among the ugliest or most beautiful of all squashes. I vote for the latter. This heirloom, hailing from the Bordeaux region of France, was listed by Vilmorin in 1883 as Warted Sugar Marrow. It resurfaced at the Pumpkin Fair in Tranzault, France, in 1996. Shaped like rounded slightly flattened pumpkins, the 15 lb fruits have salmon-peach skins covered with large warts. Although Galeux is worth growing for beauty alone, its tender moist sweet orange flesh is delightful in soups or baked. Ripens easily from direct seeding even in sub- prime squash years. For your autumn pleasure; not a good keeper. MOSA-certified. ②

**A**=1/16oz, $2.00 **B**=1/8oz, $3.60 **C**=1/4oz, $6.50
**D**=1/2oz, $11.00 **E**=1oz, $18.00 **K**=4oz, $50.00

**1673MC Marina di Chioggia** (100 days) The sea pumpkin of Chioggia is surely one of the most beautiful squashes with its deep ridges and bumpy protuberances. Though fruits grow quite large, averaging 15 lb in my 2010 plot, they have such eye appeal that growers report they are hot sellers. As delectable as they are handsome, even those harvested in 2009's horrific squash year won accolades from our staff for their dense moist texture, rich sweetness and real substance. Variability adds to their appeal, color ranging from aquamarine to very dark green, most with bumps, some without. Delicious baked, in pies; ideal for gnocchi and ravioli. *Caution: rampant vines.* ②

**A**=1/8oz, $1.80 **B**=1/4oz, $3.40 **C**=1/2oz, $6.00 **D**=1oz, $10.00
**E**=4oz, $26.00 **K**=1lb, $95.00




**Candy Roaster** (112 days) This Appalachian heirloom, peerless as a baked squash, boasts superb eating quality worthy of its name. Grows luxuriant vines, large leaves and matures somewhat warty pinkish-orange enlarged buttercup-shaped fruits with blue-green markings. Warmth brings out its sweetness. One of our seed growers, Scott Paquin of Firefly Farm in Burnsville, NC, has worked with chefs to Maxima-ize the sweet flavor and large size (13 lb avg) and to popularize it to a point where his market customers ask for it by name. "Makes the most excellent squash soup with apples, potato, ginger, garlic, onion, cumin, curry, cayenne, salt and pepper," says Paquin. He has been selecting since 2003 for storability with notable improvement. Avg production 2 fruits/plant ranging from 5–25 lb each. *Caution: Ripens in northern areas only in good growing years.*

**1675CR Candy Roaster ECO** ①

**A**=1/8oz, $1.90 **B**=1/4oz, $3.50 **C**=1/2oz, $6.40 **D**=1oz, $11.50
**E**=4oz, $33.00

**1676CO Candy Roaster OG** QCS-certified. ①

**A**=1/8oz, $2.00 **B**=1/4oz, $3.60 **C**=1/2oz, $6.60 **D**=1oz, $12.50
**E**=4oz, $36.00

## *CUCURBITA MOSCHATA*

*C. moschata* are usually smooth and tan. See also **1740** Cheese Pumpkin.

## Butternut group

**~280 seeds/oz, 1/8 oz packet sows 7 hills.** Butternut was introduced in 1936 by Joseph Breck and Sons of Boston, out of Canada Crookneck, an 1800s variety. They are the best keepers and contain 30% more vitamin A than hubbards and 80% more than acorns.

**Culture:** Butternuts should be started indoors to mature in our climate. They are the squash of choice in Zones 6 and South due to their relative resistance to the squash vine borers that torment acorns and buttercups.

**1683BO Burpee's Butterbush OG** (87 days) "Hands down the best" of the nine different butternuts Mark Fulford tried over the years. Fruits average no more than 1 1/2 lb, each a perfect one-person serving chock full of deep reddish-orange flesh "as sweet as the best sweet potatoes." Seed cavities are small. Fulford describes the flavor as nutty, and the texture moist but never watery, not as moist as the large butternuts. Their earliness is an important plus in cold summers. Though named and classed as a bush butternut, more accurately they have determinate vines which can crawl up to 10' in good fertility. Still a big advantage over the unrestrained crawlers where space is precious. Average yield is 3–5 ripe fruits per plant. Flesh has superior flavor and deeper color than any other butternut. Smooth tan skin; excellent keeper. OT-certified. ①

**A**=1/8oz, $1.90 **B**=1/4oz, $3.50 **C**=1/2oz, $6.40
**D**=1oz, $12.00 **E**=4oz, $33.00

**1685PC Ponca Baby Butternut** (90 days) Ideal for short-season gardeners who like butternut but can't vine-ripen Waltham. Baby 2 lb fruits ripen here well before Common Ground Fair. With small seed cavities, the fruits mature to tan without green streaking, but don't store as well as their big Waltham cousins. Developed by Dermot P. Coyne at the University of Nebraska in 1976. ③

**A**=1/8oz, $1.90 **B**=1/4oz, $3.50 **C**=1/2oz, $6.00
**D**=1oz, $10.00 **E**=4oz, $30.00

**Waltham** (105 days) Elegant 9" tan fruits weighing 4–5 lb. Orange dry flesh has a sweet nutty flavor. Excellent keeper. Bred by the Massachusetts Agricultural Extension Service by crossing New Hampshire Butternut (a 1956 Yaeger/Meader development) with a neckless *moschata* from Turkey, and introduced by Bob Young of Waltham, MA. Won 1970 AAS. *Caution: in cool summers such as 2009, 2011 and 2013 fails to ripen in northernmost areas.* Never-theless, our best-selling winter squash variety.

**1687WB Waltham** ②

**A**=1/4oz, $1.10 **B**=1/2oz, $1.90
**C**=1oz, $3.50 **D**=4oz, $9.60
**E**=1lb, $28.00 **K**=5lb, $130.00

**1688WO Waltham OG** CCOF-certified. ③

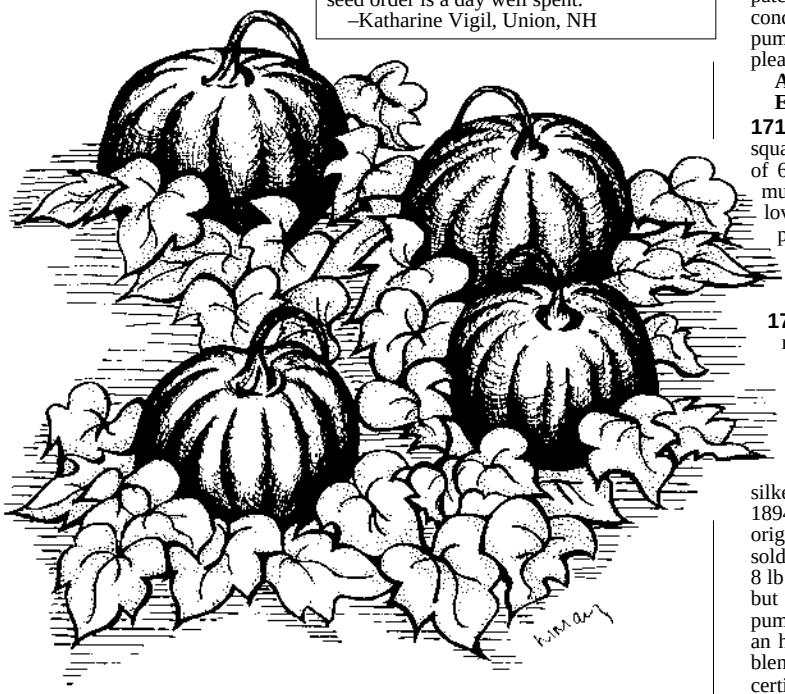
**A**=1/4oz, $1.40 **B**=1/2oz, $2.60
**C**=1oz, $5.00 **D**=4oz, $13.50
**E**=1lb, $46.00

**Supplier Codes** Know where your seed comes from! Details on page 5.
① Small seed farmers including Fedco staff.
② Family-owned companies or cooperatives, domestic and foreign.
③ Domestic and foreign corporations not part of a larger conglomerate.
④ Multinationals not to our knowledge engaged in genetic engineering.
⑤ Multinationals who are engaged in genetic engineering.
⑥ Manufacturers of neonicotinoids: Bayer and Syngenta.

### Miscellaneous *Moschata*

**1693SO Seminole OG** (110 days) Creek-speaking Seminole Indians gave it the name *chassa-howitska*, meaning "hanging pumpkin." Rated one of the ten most endangered American foods by RAFT, these buff-colored 7" tear-drop-shaped squashes were cultivated by the Seminoles in the Everglades region of Florida in the 1500s. The seeds were sowed at the base of girdled trees, so that the irrepressible vines, which grow in excess of 30', climbed the trunks, allowing the fruit to hang from the bare limbs. The deep orange flesh is sweeter than butternut, superb for pies, soup and baked treats, and the key ingredient in delicious Seminole pumpkin bread. Rated third among 21 varieties in Restoring Our Seed's 2005 fall taste test, and was co-star with Paydon in our February 2006 warehouse feast. Resistant to vine borers. Extremely hard rind must be cracked like a coconut. Stores nearly forever. A great performer in the south and along the Atlantic seaboard, it loves hot humid climates. *Probably requires too long a season to thrive in the north,* however Elisa Carbone of Hendricks, WV, advises that the immature fruits taste like extremely sweet zucchini. "Just chop them up and steam, sauté or make the most heavenly frittata ever!" QCS-certified. ②
**A**=1/8oz, $1.90 **B**=1/4oz, $3.50 **C**=1/2oz, $6.00 **D**=1oz, $11.50
**E**=4oz, $40.00

"An afternoon by the woodstove preparing a seed order is a day well spent."
–Katharine Vigil, Union, NH



## PUMPKINS

**1/8 oz packet sows 3–8 hills**, **100-280 seeds/oz.** Botanically, there are no such things as pumpkins. But we know one when we see one. "Pumpkins" listed here are three species, *Cucurbita pepo* (mini pumpkins, small pie and some jack-o'-lanterns), *C. moschata* (cheeses) and *C. maxima* (jack-o'-lanterns and decorative).
**Culture:** Plant 4–5 seeds/hill. Allow 6 ft between hills.
All open-pollinated except **1708 Autumn Gold** and **1710 Diablo.**

**1702WL Wee-B-Little** (90 days) *C. p.* This triumph of miniaturization impressed the 1999 AAS judges. Bred to please home and market gardeners and kids everywhere. Unribbed fruits are easier to decorate than Jack Be Little. Small vines (only 6–8') produce 3–4 mini 8–12 oz fruits per plant. Fruits, more upright than Jack Be Little with darker orange rind, look just like tiny pie pumpkins and could serve as such. Sturdy dark green stems provide prickle-free handles. PVP. ②
**A**=1/8oz, $1.90 **B**=1/4oz, $3.50 **C**=1/2oz, $6.00 **D**=1oz, $11.50
**E**=4oz, $35.00

**1705JL Jack Be Little** (95 days) *C. p.* Tiny ornamental pumpkins weigh only about half a pound. They're great for decorations and a big hit with kids. Good to eat, excellent stuffed. Flattened, heavily ribbed with vigorous stems. Short vines, about 3–5'. Introduced by Hollar in 1987. All seed is held over. ②
**A**=1/8oz, $1.70 **B**=1/4oz, $3.00 **C**=1/2oz, $5.20 **D**=1oz, $9.00
**E**=4oz, $26.00 **K**=1lb, $90.00

**1708AG Autumn Gold** (98 days) *C. p.* F-1 hybrid. Even northernmost growers can vine-ripen medium-sized pumpkins with 1987 AAS Autumn Gold. Commercial growers love its "precocious yellow" gene which ensures no green pumpkins at harvest. Instead, immature fruits are yellow, ripening to a deep orange, ribbed, with good handles, 10–15 lb average. ②
**A**=1/8oz, $1.70 **B**=1/4oz, $3.20 **C**=1/2oz, $5.50 **D**=1oz, $9.50
**E**=4oz, $28.00 **K**=1lb, $98.00

**1710DB Diablo** (98 days) *C. p.* F-1 hybrid. If your pumpkin program has been out-Fox'd, maybe it's time to get a handle on it by going to the devil. Tom Fox, with its massive stocky handles has defined the recent trend in jack-o'-lanterns, but we think this devil has a more refined look; its strong 4 1/2" stems are wide at the base and taper gently upward. We liked its nicely rounded Foxy fruit shape as well as its deep orange color, its intermediate 12–22 lb size and its medium-deep ribs. Semi-determinate vines. PM tolerant. ⑤
**A**=1/8oz, $2.90 **B**=1/4oz, $5.60 **C**=1/2oz, $10.50 **D**=1oz, $19.00
**E**=4oz, $70.00

**1711BP Baby Pam** (99 days) *C. p.* Agway pie pumpkin has deep orange color and excellent uniformity. Best of all, it vine-ripens 80–90% of its fruits even in a bad squash year so it's popular among Maine commercial growers. Fruits average 3–4 lb, slightly smaller and earlier ripening than New England Pie with the same excellent quality. ②
**A**=1/4oz, $1.40 **B**=1/2oz, $2.60 **C**=1oz, $5.00 **D**=4oz, $10.50
**E**=1lb, $40.00

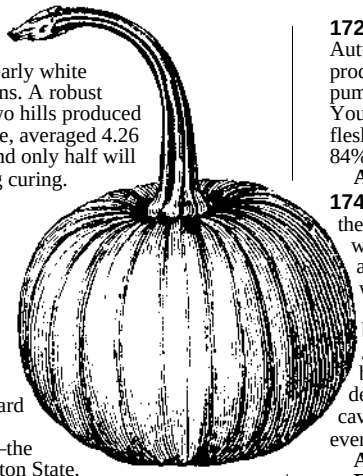
**1713LU Lumina** (100 days) *C. max.* Originated as a chance sport in one of Hollar's California pumpkin fields about 15 years ago. A lustrous ivory pumpkin that kids will love, excellent for both carving and painting. Lumina stores well if not exposed to frost, so a face painted on its smooth surface will last for weeks instead of days. Under stress, the fruit may develop blue patches. Fruits 8–10" high average 12 lb, variable depending on growing conditions. Cooks like its sweet yellow flesh. Good for puréeing or making pumpkin soup. Whether you eat it, decorate it, or both, Lumina is sure to please. All seed is held over. PVP. ②
**A**=1/8oz, $1.90 **B**=1/4oz, $3.50 **C**=1/2oz, $6.00 **D**=1oz, $11.00
**E**=4oz, $29.00

**1716JD Jarrahdale** (100 days) *C. max.* Add a touch of the unusual to your squash patch with this grey-blue Australian emigré. Somewhat sparse yields of 6–10 lb heavily ribbed fruits flattened on top like pumpkins, but with much sweeter dark moist flesh. Becky McCullough of Falmouth, MA, loved its heavenly aroma when she roasted it. "An excellent eating pumpkin, mild, stringless, quick to bake, easy to blend into a great pie," sums up Anne Elder. Outstanding keeper. ③
**A**=1/8oz, $1.30 **B**=1/4oz, $2.40 **C**=1/2oz, $4.50
**D**=1oz, $8.00 **E**=4oz, $16.00 **K**=1lb, $43.00

**1718WO Winter Luxury OG** (100 days) *C. p.* Back in 1988 when it was maintained only by the Jung Seed Co. in Wisconsin, Mark Fulford recognized that Luxury was "3–4 times as good for pies as New England Pie." Since generating rave reviews from Amy Goldman, it has become more widely available. Uniquely russeted finely netted golden-orange skin "so beautiful…that it breaks my heart to cut one open." The beauty is far more than skin deep, with Goldman calling her "flavor as fabulous as her appearance," and Elaine Carlson describing her purée as "really silken." Introduced in 1893 by Johnson & Stokes as Winter Luxury and in 1894 as Livingston's Pie Squash by A.W. Livingston's Sons. Though the original Luxury was a lemon yellow, we offer the rich orange strain first sold by Gill Bros. of Portland, OR, in 1917. Vigorous vines bear globular 7–8 lb fruits with juicy tender slightly sweet pale orange flesh. Productive, too, but somewhat delicate and only fair keepers. Goldman advises piercing the pumpkin with a few tiny vent holes, baking it whole until it slumps—about an hour at 350°, then scooping out the pumpkin flesh and putting it in the blender to make "the smoothest and most velvety pumpkin pie." MOSA-certified. ②
**A**=1/8oz, $1.80 **B**=1/4oz, $3.50 **C**=1/2oz, $6.00 **D**=1oz, $11.00
**E**=4oz, $30.00

Saving squash seed is challenging.
We list three different species of the genus *Cucurbita.*

Different varieties within the same species will cross readily, but crossing does not occur between the different species. Seeds from a crop that has been exposed to other cucurbits of the same species won't grow true to type. If you are saving seed, you need to isolate your crop from other cucurbits of the same species by at least 1500', or protect it from insects that would bring unwanted pollen, and hand-pollinate it yourself.

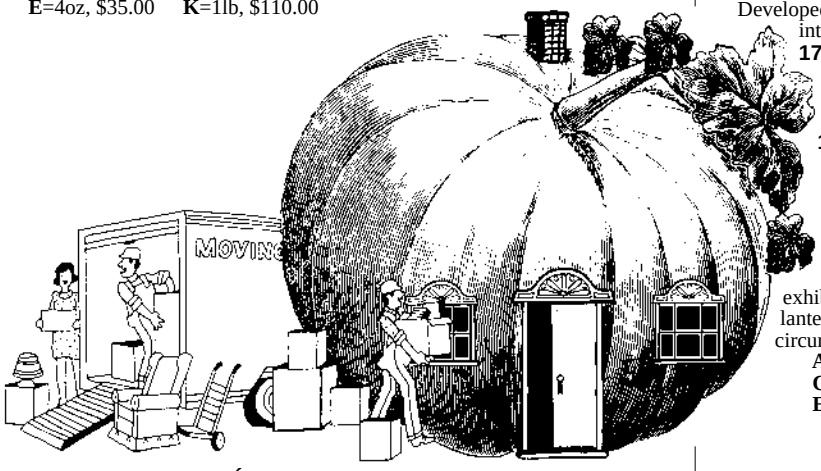


**New England Pie** (102 days) *C. p.* Also known as Small Sugar pumpkin. Probably selected out of Connecticut Field pumpkin by early white settlers, the standard pie pumpkin for generations. A robust yielder in good seasons. One warm year, our two hills produced more than 100 lb, the 25 pumpkins, all vine-ripe, averaged 4.26 lb. During cold summers production is lower and only half will vine-ripen. However, ripening continues during curing.

**1719NE New England Pie** ②③
**A**=1/4oz, 90¢ **B**=1/2oz, $1.60
**C**=1oz, $2.80 **D**=4oz, $5.80
**E**=1lb, $18.00 **K**=5lb, $85.00

**1720NO New England Pie OG** CCOF-certified. ③
**A**=1/4oz, $1.40 **B**=1/2oz, $2.60
**C**=1oz, $5.00 **D**=4oz, $13.00
**E**=1lb, $45.00

**1723LO Long Pie OG** (102 days) *C. p.* Richard Layman said, "This is our first order from you, initiated because you sell Long Pie Pumpkins—the best taste, the hardiest here in Eastern Washington State. Thank you for not succumbing to 'round pumpkin mentality'!" Possibly an old Native American variety offered by Burpee in 1888 as St. George, still the best pumpkin for Yankee pumpkin pies. Though widely grown in Androscoggin County 60 years ago (an old-timer remembers them stacked up on porches like firewood), it almost became extinct. LeRoy Souther, a Livermore Falls, ME, native who maintained it for more than 30 years, brought seeds to cucurbit aficionado John Navazio at his Common Ground Fair squash booth in the late 1980s. Navazio exhibited one at the 1988 Fair, then reintroduced it to commerce through Garden City Seeds in Montana. 3–5 lb fruits look like overgrown zucchinis to the uninitiated, but the telltale sign is an orange spot where the otherwise all-green elongated fruit rested on the ground. Vines have enormous vigor that has been increased through selection by our seed growers and can achieve astonishing yields. In storage, the whole fruit first blushes, then glows bright orange, signaling that its delicious flesh is ready to be turned into incomparable pies. One of the best for continued ripening after picking, Long Pie stored at 50˚ keeps all winter. Germinates poorly in cold soil. The little immature fruit under 5" long at the end of the season make great summer squash. VOF-certified. ①
**A**=1/8oz, $1.80 **B**=1/4oz, $3.50 **C**=1/2oz, $6.00 **D**=1oz, $11.00
**E**=4oz, $35.00 **K**=1lb, $110.00




**1727RV Rouge Vif d'Étampes** (105 days) *C. max.* Also known as Cinderella. Goldman says it "coasts on its looks alone…insipid and watery." "Not so," dissents Donna Fraser-Leary of Charlotte, VT. "You do this…versatile pumpkin an injustice…While their flavor is somewhat milder than a winter squash and the texture somewhat fibrous…My daughter and I like it so much, we steam the pumpkin and eat it still in the shell. I use it in all my favorite recipes that call for squash or pumpkin." Rosalind Creasy says chefs in France use it as a base in their vegetable stock and bake garlic, onions and leeks in the pumpkin to scoop right from the shell into a Swiss cheese leek soup. While folks may disagree about its eating quality (I fall closer to Goldman's camp), no one can gainsay its spectacular beauty. This French heirloom turns the pumpkin patch into a glowing blaze with its decorative deeply ridged burnt-orange to red 7–30 lb flattened fruits that make great decorations. Because of its thin skin, not a great keeper. Originated in France in the early 1800s, named for a town south of Paris. Introduced to the U.S. by Burpee in 1883. ②③
**A**=1/8oz, $1.40 **B**=1/4oz, $2.60 **C**=1/2oz, $4.50 **D**=1oz, $7.50
**E**=4oz, $20.00 **K**=1lb, $62.00

"Last night as I was sleeping,
I dreamt—marvelous error!—
that I had a beehive
here inside my heart.
And the golden bees
were making white combs
and sweet honey
from my old failures."
–Antonio Machado, from
"Last Night As I Was Sleeping"

**1729YO Young's Beauty OG** (105 days) *C. p.* Unimpressed by **1708** Autumn Gold's "precocious yellow" gene? Don't care for its tendency to produce irregularly shaped fruit? Prefer a classic mid-sized open-pollinated pumpkin that usually ripens perfect brilliant deep orange globes? Try Young's Beauty. Expect good production of uniform hard-skinned thick-fleshed 10–12 pounders that make good pies. All seed is held over; tested at 84%. *Caution: May not ripen in northernmost areas.* MOFGA-certified. ①
**A**=1/8oz, $1.40 **B**=1/4oz, $2.60 **C**=1/2oz, $4.50 **D**=1oz, $7.50

**1740CH Cheese** (110 days) *C. mos.* Always exhibition-hall favorites, these handsome 6–12 lb wide-ribbed flattened tan fruits look like big wheels of cheese. Identified by Hedrick in *Cucurbits of New York* (1937) as "one of the oldest varieties cultivated in America," a distinctive group which has "remained remarkably stable." Introduced to commerce in 1807 by McMahon. Some folks call this variety Long Island Cheese because it was once the preferred pumpkin for pies in New York, New Jersey and on the island. Bright orange meat is coarse and quite fibrous, but its tender sweetness redeems its textural deficiencies and it does not deserve Hedrick's terse dismissal: "quality poor." Good for baking, deep cavity lends itself to stuffing. We have found it to be a dependable producer even in our climate and unmatched as a good keeper. ③
**A**=1/8oz, $1.40 **B**=1/4oz, $2.60 **C**=1/2oz, $4.50 **D**=1oz, $7.50
**E**=4oz, $22.00

**Lady Godiva** (110 days) *C. p. Still not available in 2015;* hard to produce seed.

**1748CF Connecticut Field** (115 days) *C. p.* Also known as Big Tom. Grown for jack-o'-lanterns and stock feed, gets 15–25 lb, sometimes more. Not uniform in size or shape. Heirloom grown by Native Americans, adopted by colonists before 1700, and a staple of 19th-century catalogs. Vick's offered for 10¢ an oz. and 50¢ per lb in 1877. *Ripens for us in good years, but often we must pick green.* ③
**A**=1/4oz, 90¢ **B**=1/2oz, $1.60 **C**=1oz, $2.80 **D**=4oz, $5.80
**E**=1lb, $20.00 **K**=5lb, $95.00

**Howden** (115 days) *C. p.* For 40 years Howden's symmetrical fruits with hard ridged skin and thick flesh have set the standard for large round jack-o'-lanterns both for fresh market and shipping. Now so much a New England tradition that Kimberly Mastrianni of Langdon, NH, "hands out Howden seeds at our town meeting so people can plant them and bring the pumpkins to our annual Fall Festival." Large spreading vines produce 4–6 deep orange fruits per plant, typically much more uniform than Connecticut Field while weighing 20–35 lb, often able to ripen fully in our climate. Developed by John Howden in the Berkshires of Massachusetts and introduced by Harris Moran in 1973. Tolerant to BLR.

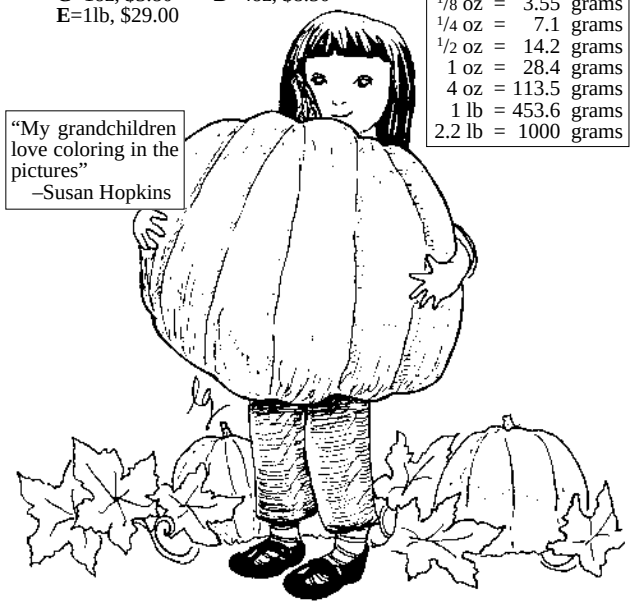
**1751HW Howden** ②
**A**=1/8oz, $1.10 **B**=1/4oz, $2.00
**C**=1/2oz, $3.20 **D**=1oz, $5.50
**E**=4oz, $11.00 **K**=1lb, $38.00

**1752HO Howden OG** ICS -certified. ①
**A**=1/8oz, $1.40 **B**=1/4oz, $2.60
**C**=1/2oz, $4.50 **D**=1oz, $7.50
**E**=4oz, $18.00 **K**=1lb, $60.00

**1757BM Big Max** (120 days) *C. max.* These are big pumpkins. Not big enough to compete in giant-pumpkin contests (you'd need Dill's Atlantic Giant, not offered by us) but certainly sufficient for exhibiting in your county fair or for displaying as an awesome jack-o'-lantern. Typically weighs 50–100 lb and measures up to 70" in circumference! ②
**A**=1/4oz, $1.10 **B**=1/2oz, $2.10
**C**=1oz, $3.80 **D**=4oz, $8.50
**E**=1lb, $29.00

| Weight equivalents | | |
|---|---|---|
| 1/16 oz | = | 1.77 grams |
| 1/8 oz | = | 3.55 grams |
| 1/4 oz | = | 7.1 grams |
| 1/2 oz | = | 14.2 grams |
| 1 oz | = | 28.4 grams |
| 4 oz | = | 113.5 grams |
| 1 lb | = | 453.6 grams |
| 2.2 lb | = | 1000 grams |

"My grandchildren love coloring in the pictures"
–Susan Hopkins

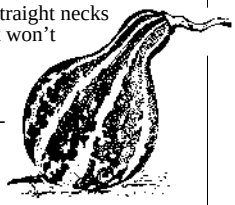


# GAMBOLING GOURDS

**Ornamental gourds avg, 500 seeds/oz, Luffa avg 280 seeds/oz, Hardshell gourds avg. 120-200 seeds/oz. All gourds are open-pollinated.** Gourds come in two major categories (Luffa is a third). The small ones are *Cucurbita pepo* var. *ovifera*, known as ornamental gourds for their variety of shapes, colors and surfaces. These vigorous viners will usually mature in our climate if direct-seeded. The larger ones are *Lagenaria siceraria* or hardshell gourds, named from the Greek *lagenos,* 'a flask,' and *sicera*, 'an intoxicating drink.' *Lagenaria*, though lacking the color range of their smaller cousins, fascinate with their magical shapes.

**Culture for *Lagenaria:*** Because of their long season they must be started indoors in our climate. To improve germination, sandpaper or clip off the radicle end and soak the seed. They resent transplanting and will grow slowly for a few weeks. Once they take off, these rampant crawlers are noted for their enormous foliage, more velvety in texture than that of other cucurbits, and their large white almost luminous night-blooming flowers. Heavy feeders, they will take up huge amounts of garden space unless trellised. If you cut off the spent female flowers daily, they make an excellent, albeit malodorous, flowering vine.

**1909DO Tennessee Dancing Gourd OG** (93 days) *C. p.* var. *ovifera* Anyone who sees these tiny 2–3" adorable green-and-white striped bottle gourds falls in love with them. They generated quite a buzz at our Common Ground Fair booth exhibit. We received a nice letter from Junior Gordon of Primm Springs, TN, the original source for this delightful conversation piece. Gordon says these are better known as spinning gourds and advises us to select our seed crops for short, fairly thick straight necks and to rogue out those with the longer crooked necks that won't spin as well. To spin them "take the neck between your middle finger and thumb and snap your fingers with a quick action." Kids in Tennessee used to bring them to school as toys. Rampant vines are extremely prolific producers of the small fruits. Hard shells dry to tan color. MOSA-certified. ②



**A**=1/8oz, $2.10 **B**=1/4oz, $3.90 **C**=1/2oz, $7.50 **D**=1oz, $13.50 **E**=4oz, $45.00

**1912SM Small Ornamental Mix** (95 days) *C. p.* var. *ovifera* Eight kinds of early-maturing types, with small spoon, bicolored pear, and small orange most prevalent. ②

**A**=1/8oz, $1.70 **B**=1/4oz, $3.00 **C**=1/2oz, $5.00 **D**=1oz, $8.50 **E**=4oz, $30.00

**1939PW Professional Small Warted Mix** (95 days) *C. p.* var. *ovifera* A balanced assortment of flats, rounds, short pears, pears and spoons in a variety of solid, striped and bicolor patterns. Yellows, greens, oranges and whites make a bright display. We love them, warts and all. ②

**A**=1/8oz, $1.70 **B**=1/4oz, $3.00 **C**=1/2oz, $5.00 **D**=1oz, $8.50 **E**=4oz, $30.00

**1952CT Shenot Crown of Thorns** (95 days) *C. p.* var. *ovifera* Small gourds with pointed ribs that look like teeth. Sometimes called Ten Commandments because the finger-like projections always number ten or Ghost Gourd because their white cream color and weird shape make them ghastly. Kids love to paint on their smooth surfaces for Halloween decorations. All seed is held over. ②

**A**=1/8oz, $1.70 **B**=1/4oz, $3.00 **C**=1/2oz, $5.00 **D**=1oz, $8.50 **E**=4oz, $30.00

**1957AW Autumn Wings** (100 days) *C. p.* var. *ovifera* These are to gourds as the 1957 Cadillac was to cars. They have a double set of fins or wings. The car makers claimed aerodynamic advantages for their design; the gourd breeders make no such assertion. Both the gourd and the car are highly conspicuous. Autumn Wings' colors, a vivid mix of greens, yellows, creams and whites, make them even more so. Some of these gourds are straight necked and others are curved. They vary in size, too, although most are 6–8" in length. We stop short of claiming them to be the Cadillac of gourds, but bet they'll make a good roadside stand attraction. ②

**A**=1/8oz, $2.20 **B**=1/4oz, $4.20 **C**=1/2oz, $7.00 **D**=1oz, $12.00 **E**=4oz, $46.00

**1962LU Luffa** (110 days) *Luffa aegyptiaca* May be more closely related to the cucumber than to the hardshell Lagenaria. Also known as Dishrag Gourd, dried and used for making bath sponges. Some folks pick them young, steam and panfry them. In addition to being a scrubber and a comestible, this versatile gourd has been used to make soundproof wall boarding, to insulate army helmets, to stuff mattresses and saddles and even to make filters for steam engines and diesel motors! *Caution: Luffa requires a long season. Start indoors and culture like melons.* We recommend trellising if you want your luffas to remain straight. ②

**A**=1/8oz, $1.40 **B**=1/4oz, $2.40 **C**=1/2oz, $3.80 **D**=1oz, $6.40 **E**=4oz, $16.00

**1963SG Speckled Apple** (110 days) *Lagenaria siceraria* A prime specimen on exhibit at the 1999 Common Ground Fair won our hearts. Shaped like a Red Delicious apple blown up to three times normal size, these gourds sit up on four points with dimples in between. Mostly green with some white splotches. ②

**A**=1/8oz, $1.60 **B**=1/4oz, $3.00 **C**=1/2oz, $5.00 **D**=1oz, $7.50 **E**=4oz, $22.00

**1965BO Baby Bottle OG** (110 days) *L. s.* A mini-version of the bottle gourd with a shorter growing season. These gourds, averaging 2–3" in diameter and 4–6" long, make great ornaments. CCOF-certified. ③ **NEW!**

**A**=1/8oz, $2.20 **B**=1/4oz, $4.00 **C**=1/2oz, $7.00 **D**=1oz, $12.00 **E**=4oz, $45.00

**1966LB Large Bottle** or **Birdhouse** (120 days) *L. s.* Rampant crawling vines produce large gourds with bulbous base and narrow neck, usually with a bulge at the stem end. Grow 14" tall and up to one foot in diameter. Green rind turns white or starts to brown upon maturity. When dried, make durable bottles or birdhouses. ②

**A**=1/8oz, $1.60 **B**=1/4oz, $3.00 **C**=1/2oz, $5.00 **D**=1oz, $7.50 **E**=4oz, $22.00

**Speckled Swan** (120 days) *L. s.* Susan Kiralis exhibited a gorgeous specimen that deserved a Judge's Award at this year's Common Ground Fair. Indeed, fairgoers have gawked at these show-stealers, whether in Jack Kertesz' demonstration gardens or at our booth or in the Hall, for many years, admiring Swan's beautiful dark green surface with very pale green 1" splotches that bleed like strokes from a paintbrush. Large round 8–10" base tapers into graceful long neck, sometimes straight, sometimes arched, capped by a small bulb near the stem that looks like a swan's head.

**1968SP Speckled Swan** ②

**A**=1/8oz, $1.60

**1969SO Speckled Swan OG** CCOF-certified. ③

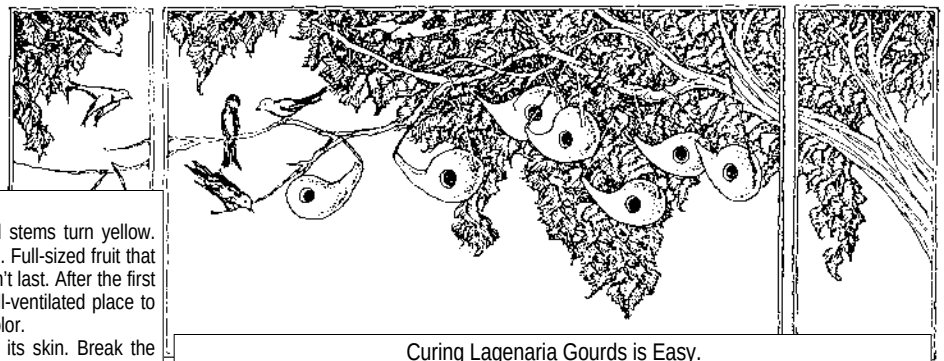
**A**=1/8oz, $2.20 **B**=1/4oz, $4.20 **C**=1/2oz, $8.00 **D**=1oz, $12.50 **E**=4oz, $36.00

**1974CC Corsican Canteen** (125 days) *L. s.* Sets 3–6 fruits per plant, shaped like an old-fashioned canteen with height of 3 1/2" and a 7" diameter, some larger. Will make lovely lidded bowls. Amy LeBlanc's exhibit at 2013 Common Ground was the best and largest of these I've ever seen. She starts them in her hoophouse. Originally from Native Americans in New Mexico. ②

**A**=1/8oz, $1.70 **B**=1/4oz, $3.00 **C**=1/2oz, $5.00 **D**=1oz, $8.50 **E**=4oz, $26.00

**1990BS Bushel** (135 days) *L. s.* Shaped like a large bowl with a pot lid on it. Can grow enormous given sufficient heat, but in Maine will probably max out at 18" across. *Caution: requires a long season to mature.* To improve your chances limit each vine to one fruit. Prune to halt vine growth after it sets its first fruit. ②

**A**=1/8oz, $1.60 **B**=1/4oz, $3.00 **C**=1/2oz, $5.00 **D**=1oz, $9.00 **E**=4oz, $25.00



### How to Produce a Luffa Sponge

When luffas are ripe their skins turn brown and dry and stems turn yellow. Check your plants frequently and harvest only ripe gourds. Full-sized fruit that are still green produce soft, fine-textured sponges that don't last. After the first killing frost remove any nearly ripe gourds to a warm well-ventilated place to allow them to dry. Gourds left wet for long will readily discolor.

If the luffa has just ripened, gently squeeze and pop its skin. Break the blossom end cap and pull the vascular bundle (that's the sponge!) up the side of the gourd like a zipper. The sponge will pop out, wet and white. Quickly rinse it in water to prevent oxidation.

If gourds are too dry to pop the sponge out, ret them (thoroughly soak in water) for several days until the skin sloughs off leaving only the spongy fiber. After retting, shape and dry the sponge. Remove seeds either before or after retting. We found it easy to do before retting: cut open the larger end of the gourd and either shake or rinse out the seeds. If you wish to whiten the sponges, bleach by soaking either in a 10% bleach solution or in hydrogen peroxide. Rinse luffas thoroughly in clean water and dry before use.

### Curing Lagenaria Gourds is Easy.

Hardshell gourds are 90% water at harvest. They need to be cured or dried, a slow process of evaporation through the outer shell, which is covered by a thin ivory-green skin. Curing can take 6 weeks to 1 year (average time 4 months) depending on gourd size, thickness of shell, weather and storage conditions.

Immature gourds (that have not developed a thick shell) will rot after harvest. Mature gourds are large and weighty. To cure, store off the ground in a well-ventilated room or unheated outbuilding. For a smooth beige surface, scrape off the outer skin after it loosens and darkens. (Freezing and thawing loosens the outer skin.) Outer skin, if left on, may become moldy; mold-patterned skin will dry to the gourd shell and can be sanded off, painted over or incorporated into the decoration.

# CARROTS *Daucus carota*

**1/8 oz packet sows 35 ft; 1 oz, 280 ft. Carrots average 18,000 seeds/oz with significant variations among varieties.**

**Culture:** Very hardy. Early carrots can be sown by late April. Can take up to 3 weeks to germinate; keep rows from drying out for faster emergence. Sow carrots for winter storage in mid-late June. Thinning is critical: At 3" high thin to 1/2" apart, at 6" thin again to 1" apart. Minimal germination temperature 40˚, optimal range 60–85˚, optimal temperature 80˚. Emergence takes 17 days at 50˚, 10 days at 59˚, 6 days at 77˚, 48% normal seedlings at 41˚, 96% normal at 68˚.

**Diseases:**

ALTS Alternaria Leaf Spot
CLS Cercospora Leaf Spot
P Pythium

ALTS shows up first on the oldest foliage as brown-black spots edged with yellow. Foliage blackens and shrivels as it develops and spreads. Maintaining a good crop rotation is the best preventive.

## Open-pollinated CARROTS

**2018TP Tonda di Parigi** (55 days) A round Parisian-type carrot that we prefer to the old Thumbelina. At 1 1/2" Tonda is slightly longer than Thumbelina with deep orange color and improved taste. Tondas are best harvested when they are young and tender and very sweet. Enjoy them cooked to maximize their sweetness and to elicit their superb creamy texture. The easiest carrot to grow if you have heavy clay soil. 19th-century heirloom from Paris. Not for storage. ②

**A**=1/8oz, $1.40 **B**=1/2oz, $4.20 **C**=1oz, $7.50
**D**=4oz, $22.00 **E**=1lb, $80.00

**2024AM Amsterdam #2** (55 days) Amsterdam's slender tapered 6–7" roots are longer, less stubby and develop better color at a younger stage than Minicor's. Ideal for succession plantings of baby carrots throughout the summer, provided they are given adequate moisture. Not particularly sweet but with a carroty sharpness that leaves a pleasant taste sensation. Crisp and tender with a small core. Not for storage. ②

**A**=1/8oz, $1.40 **B**=1/2oz, $4.50 **C**=1oz, $7.50
**D**=4oz, $22.00 **E**=1lb, $80.00

**2042SN Scarlet Nantes** (68 days) This old-time favorite Nantes variety with bright orange roots averaging 6–7" proves that good quality is not always expensive. Sweet with a small dark core. Received a high overall score in the 2005 Oregon State University trials. Has been our best-selling carrot in recent years. ②

**A**=1/8oz, $1.00 **B**=1/2oz, $2.80 **C**=1oz, $4.20
**D**=4oz, $8.40 **E**=1lb, $21.00 **K**=5lb, $98.00

**Nantes Fancy OG** (68 days) *Not available in 2014* but high hopes for a crop in the works for 2015.

**2058RC Red Cored Chantenay** (70 days) According to William Woys Weaver, this heirloom originated in France around 1879 and "needs no improvement." Produces 5–7" thick red-orange roots that have had excellent carroty flavor in our September taste tests. Dependable performer does well in heavy soils. The storage carrot of choice for Jay and Polly Armour of Four Winds Farm in Gardiner, NY. Devoted customers at their monthly winter markets esteem its taste. ②

**A**=1/8oz, $1.00 **B**=1/2oz, $2.80 **C**=1oz, $4.20
**D**=4oz, $8.40 **E**=1lb, $21.00 **K**=5lb, $98.00

**Rumba OG** (72 days) At press time was *not available*. Check our website late in the season for possible availability.

**2063YS Yellowstone** (72 days) Yellowstone boasts a crisp clean flavor that has shown up well in our recent taste tests. Big-shouldered roots with large greenish-yellow cores grow up to 8" long, averaging 7". Productive in a wide variety of soils. Research shows that yellow carrots contain xanthophylls, pigments similar to beta carotene, that help develop healthy eyes and may help prevent lung and other cancers. ④

**A**=1g, $1.90 **B**=3g, $4.50 **C**=6g, $8.00 **D**=24g, $22.00
**E**=120g, $90.00

**2068AO Atomic Red OG** (74 days) This Imperator type is really red with a hint of purple on the outside of the 4–6" cylindrical roots. Slice it open to rings of color, the red rind giving way to a deep orange interior with a lighter core. Even the stems and tops show red. Roots taste mild and sweet when raw. Keeps its color when cooked and develops a yummy carroty sweetness with no harshness. But taste is pure bonus. Color packs the wallop here, color that could make your sales explode. Susceptible to P. CCOF-certified. ③

**A**=1g, $1.70 **B**=3g, $4.20 **C**=6g, $7.00 **D**=24g, $18.00
**E**=120g, $75.00

**2073SK Shin Kuroda 5"** (75 days) Over the years we've enjoyed several strains of the stump-rooted Japanese-type carrots that are so popular in Asian markets. *Shin* means 'new' in Japanese. Tender sweet Shin Kuroda scored high in our October taste test, and also impressed us with its bright orange color. These Kurodas, developed from the old Chantenay type, do well in a wide range of soil and weather conditions and store well. ②

**A**=1/8oz, $1.00 **B**=1/2oz, $2.80 **C**=1oz, $4.20
**D**=4oz, $8.40 **E**=1lb, $21.00 **K**=5lb, $100.00

**2076DO Danvers OG** (75 days) The original Danvers Half-Long was developed by market gardeners in Massachusetts in 1871. This modern improvement features 7" conical orange roots that taper to a point. Easier to grow in heavy soils than the longer more refined types. Broader at the top and more fibrous than the Nantes varieties. Outstanding for cooking and winter storage. CCOF-certified. ③

**A**=1/8oz, $1.30 **B**=1/2oz, $4.20
**C**=1oz, $8.00 **D**=4oz, $17.00
**E**=1lb, $61.00 **K**=5lb, $295.00

**2078JD Jaune du Doubs** (78 days) I like this 19th-century French heirloom best of all the yellow carrots. Holli Cederholm, another admirer, calls it "a mainstay in her open-pollinated rainbow carrot bunches," and reports it performed beautifully on her heavy and rocky new ground—with fewer culls than **2076** Danvers or Dragon. Not everyone agrees. Some are put off by its sometimes rough unrefined appearance and variable taste and texture. We advise working your seed bed well before sowing to avoid forked or shallow roots. The plants have the kind of dense rampant wildness that has been tamed out of the newer hybrids, so thin them more rigorously than other varieties. Well-grown they produce smooth conical 5–8" yellow roots, showing slight green shoulders and good core color. Better flavor cooked than raw and retains good color. Cederholm reports the roots stay crisp and crunchy in storage for tri-colored carrot slaw all winter. ②⑤

**A**=1/8oz, $1.60 **B**=1/2oz, $5.00 **C**=1oz, $8.00
**D**=4oz, $26.00 **E**=1lb, $100.00

**2079KO Scarlet Keeper OG** (85 days) A stalwart storage carrot and difficult-to-produce biennial seed crop. These 7–9" heavy cylindrical roots with broad red shoulders, large deep orange cores and blunt tips are without peer when they come out of the root cellar in March, even though they are not our first choice for fresh fall eating. Good for juicing, too. In a taste test at our warehouse its juice quality was comparable to that of our old favorite **2086** Mokum. MT-certified. ①

**A**=1g, $1.50
**B**=3g, $3.80
**C**=6g, $6.50

**Weight equivalents**

| | |
|---|---|
| 1 gram = | .035 oz |
| 3 grams = | .106 oz |
| 6 grams = | .212 oz |
| 24 grams = | .851 oz |
| 120 grams = | 4.24 oz |
| 1/16 oz = | 1.77 g |
| 1/8 oz = | 3.55 g |
| 1/4 oz = | 7.09 g |
| 1/2 oz = | 14.2 g |
| 1 oz = | 28.4 g |

**Supplier Codes** Know where your seed comes from! See page 5 for details.
① Small seed farmers including Fedco staff.
② Family-owned companies or cooperatives, domestic and foreign.
③ Domestic and foreign corporations not part of a larger conglomerate.
④ Multinationals not to our knowledge engaged in genetic engineering.
⑤ Multinationals who are engaged in genetic engineering.
⑥ Manufacturers of neonicotinoids: Bayer and Syngenta.

## Hybrid CARROTS

**1 gram packet has over 600 seeds and sows about 10 ft.**

**2086MK Mokum** (48 days) Arguably the tastiest carrot for fresh eating in late spring and summer. Repeat winner of our summer taste tests. Mokum's earliness, slenderness and sweetness transcend its flaws. Blunt Amsterdam-type that sizes extremely quickly with short weak tops, brittle and not machinable. Should be harvested at 5–6" before the roots push out of the ground and develop green shoulders. Although not a versatile full-season carrot, Mokum merits succession planting so you can enjoy it young throughout the summer. Always the first to disappear from our spring patch. Not for storage. Susceptible to ALTS at our Colrain, MA, plot in 2009 and 2012 but not in 2010. ④

**A**=1g, $2.00 **B**=3g, $5.00 **C**=6g, $8.00 **D**=24g, $26.00 **E**=120g, $110.00

**2090NO Napoli OG** (55 days) F-1 hybrid. A favored variety for Eliot Coleman's famous candy carrots overwintered in unheated greenhouses. Blunt Nantes type grows 7–8" cylindrical roots with strong medium-sized dark green tops. Crispy, snappy, sweet and juicy with a medium core. Also grows rapidly when sown outdoors in spring and makes a good early bunching carrot. Suitable for fresh market or storage. Good performer in high tunnels. OT-certified. ④ **NEW!**

**A**=1g, $2.60 **B**=3g, $7.20 **C**=6g, $12.00 **D**=24g, $40.00 **E**=120g, $180.00

**2092NL Nelson** (56 days) Twin Oaks Coop in Virginia rates Nelson the best in hot weather when it is hard to get tasty carrots. Sweet carroty Nantes-type stays tender and crisp under a variety of growing conditions. Smooth and uniform, 6–7" cylindrical blunt roots with deep orange color have won the widespread endorsement of commercial growers and home gardeners. Strong tops make it suitable for summer bunching. Widely grown in Europe; the seed comes from Bejo in Holland. Susceptible to ALTS in 2012. ④

**A**=1g, $2.00 **B**=3g, $5.00 **C**=6g, $8.00 **D**=24g, $26.00 **E**=120g, $110.00

**2093YO Yaya OG** (58 days) Nantes type. Tom Vigue says "unbeatable as a summer carrot." Not yet a grandmother in the carrot world, relatively new Yaya is in the same quality class with **2086** Mokum and **2092** Nelson, a standout three straight years in our observation plots. In his stale-bed method carrot intensification project in 2012 in Monroe, ME, grower Mark Fulford achieved a yield of 254 lb from a 150 sq ft 4-row carrot bed using Yaya, more than 80% #1s. That averages out to 73,000 lb/acre, more than double the average carrot yield according to the USDA. Averaging 6", Yaya is slightly shorter-rooted than Nantes Fancy but more flavorful. A little smoother and more uniform than Nelson. Strong tops, good for bunching. Crisp clean sweet carrot flavor. Can be used for baby or full-sized carrots. Showed some tolerance to ALTS in our 2009 MA plot. OT-certified. ④

**A**=1g, $2.20 **B**=3g, $6.00 **C**=6g, $10.50 **D**=24g, $32.00 **E**=120g, $140.00

**2094SS Sugarsnax** (68 days) If you have the tilth, we have the carrot. Tom Hodgson of Wishetwurra Farm in W. Tisbury, MA, sent us a picture of his 15-incher. We thought an Imperator carrot with flavor was an oxymoron until we met Sugarsnax, a fresh-market standout with long slender beautiful deep orange roots ideal for bunching. In average conditions more likely to grow 9" than 15. Outstanding in trials and taste tests, it has a tender sweetness that keeps you coming back for more. All seed is held over. Tolerant to ALTS, CLS and P. ⑤

**A**=1g, $1.70 **B**=3g, $4.00 **C**=6g, $7.50 **D**=24g, $20.00 **E**=120g, $80.00

**2095JO Jeanette OG** (50 days baby, 70 days mature) F-1 hybrid. In this summer's carrot trials, ugly and debilitating foliar disease kayoed most competitors from consideration. Only Early-Nantes–hybrid Jeanette's short 12" unscathed tops stayed vibrant and well attached past any recommended harvest date. Plucked easily out of the ground at 50 days, Jeanette yielded 4" light orange perfect blunt cylinders. These young pickings were tender and crisp, popping with a lingering sparkly sweetness. At full 7–8" size, the pop was still there, the flavor deepened, and the crunch increased without becoming coarse. With no green shoulders, no forking or splitting, Jeanette gives us a sweet and crunchy taste of organic-breeding success. LACON-certified. ④ **NEW!**

**A**=1g, $2.40 **B**=3g, $6.80 **C**=6g, $11.50 **D**=24g, $38.00 **E**=120g, $160.00

> "As I write this, two or three weeks later, I am sitting near the brook under a tulip tree, 70 feet high, thick with the fresh verdure of its young maturity—a beautiful object—every branch, every leaf perfect. From top to bottom, seeking the sweet juice in the blossoms, it swarms with myriads of these wild bees, whose loud and steady humming makes an undertone to the whole, and to my mood and the hour."
>
> –Walt Whitman, from *Specimen Days*

**2096PH Purple Haze** (70 days) Again 2006 AAS winner Purple Haze outperformed Purple Dragon in our trial. Enhanced by a texture almost as refined as the best orange carrots, it has none of Dragon's harshness. Purple with orange stretch marks and a vivid orange core, Haze will really draw crowds to your stand. Though its raw flavor is average, it improves with cooking, though color fades. The 7" tapered roots store fairly well. This first purple Imperator-type carrot may make you want to kiss the sky! Contains 0.5% orange off-types. ④

**A**=1g, $2.50 **B**=3g, $6.80 **C**=6g, $11.50 **D**=24g, $38.00 **E**=120g, $170.00

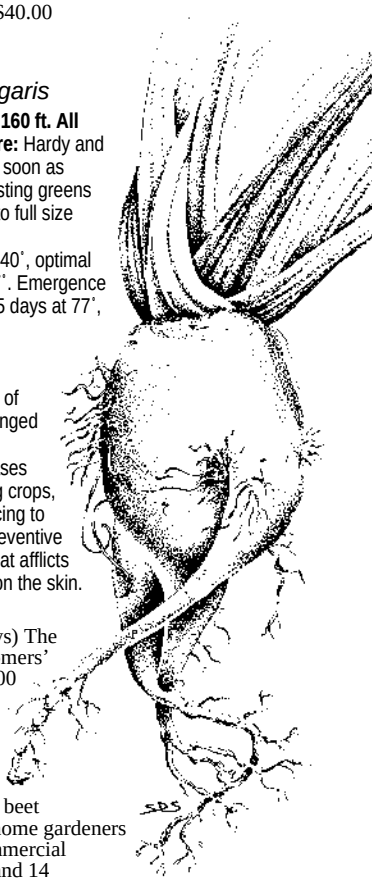
**2097WS White Satin** (70 days) Satin, a Nantes-Imperator cross, is by far the best white carrot we've trialed. Hillary Nelson of Canterbury, NH, says its classic 8" roots are "some of the most perfect looking carrots I've grown—straight and long," with the ideal carrot shape in a pleasing creamy white. Sweet and crunchy when eaten raw, it has none of the wild carrot taste or hairiness typical of other white carrots. When cooked it is sweet and mild with a smooth texture. Develops 1" green shoulders when mature. Medium core. Contains 2% orange off-types. ④

**A**=1g, $2.50 **B**=3g, $6.80 **C**=6g, $11.50 **D**=24g, $38.00 **E**=120g, $170.00

**2099OR Over the Rainbow Mix** (48-75 days) If there's a better carrot mix than this one, it must be somewhere over the rainbow, way up high. We took a good formula called Rainbow Mix, especially strong in the lighter shades of yellow and orange, and boosted it with our own choice of dark orange, purple and red varieties. In doing so, we sacrificed some of the uniformity our European supplier maintains, so not all the roots are perfectly slender and tapered, nor will they all mature at the same time. But oh the colors! ④

**A**=1g, $2.60 **B**=3g, $7.20 **C**=6g, $12.00 **D**=24g, $40.00 **E**=120g, $180.00

## BEETS *Beta vulgaris*



**1/8 oz packet sows 20 ft, 1 oz about 160 ft. All open-pollinated except 2121. Culture:** Hardy and easy to grow. Can be sown almost as soon as ground can be worked. Thin by harvesting greens with baby beets. Beets left to mature to full size should be at least 3" apart.

Minimum germination temperature 40˚, optimal range 60–85˚, optimal temperature 77˚. Emergence takes 17 days at 50˚, 10 days at 59˚, 5 days at 77˚, highest % of normal seedlings at 77˚.

**Diseases:**

CLS Cercospora Leaf Spot

CLS looks like someone shot a series of small target holes in the foliage. Prolonged periods of rainfall and high humidity exacerbate this disease. In serious cases the spots darken and extend. Rotating crops, removing plant debris, and wider spacing to ensure adequate air circulation are preventive measures. Scab, the same disease that afflicts potatoes, causes rough brown spots on the skin. Adequate irrigation is a preventive.

**Early Wonder Tall Top** (48 days) The beet that can't be beat in our customers' estimation. We sell more than 5,000 packets per year. Selected for earliness from Crosby's Egyptian and introduced in 1911. Quick emergence in cold soil and attractive purple tops make Wonder the choice for early beet greens and bunching beets. Both home gardeners (scarfed up 3,458 size-A) and commercial growers (bought 160 1-pounders and 14 5-pounders) like Early Wonder. In their 1916 catalog F.H. Woodruff & Sons of Medford, CT, claimed to be the largest beet-seed growers in the U.S. and the originators of Early Wonder.

**2108EW Early Wonder Tall Top** ③

**A**=1/8oz, 90¢ **B**=1/2oz, $1.40 **C**=1oz, $2.50 **D**=4oz, $4.40 **E**=1lb, $13.50 **K**=5lb, $62.00

**2109WO Early Wonder Tall Top OG** CCOF-certified. ②③

**A**=1/8oz, $1.10 **B**=1/2oz, $2.00 **C**=1oz, $3.80 **D**=4oz, $9.00 **E**=1lb, $34.00 **K**=5lb, $160.00

**2121RO Red Ace OG** (50 days) F-1 hybrid. Sweet early season beet with purple tops. Market growers appreciate its uniformity and perfect shape, very similar to Early Wonder but more refined. We are well-stocked so there won't be any backorders. Tolerant to CLS. WA-certified. ⑤

**A**=1/8oz, $2.00 **B**=1/2oz, $6.00 **C**=1oz, $9.00 **D**=4oz, $22.00 **E**=1lb, $70.00

## BEETS continued

**2124AB Albino** (50 days) Too many white beets are either insipid sugar-beet types or, even worse, bitter throat-burning hell rides. In stark white contrast and classic beet shape, Albino's cooked texture is firm to the tooth without fiber or coarseness, and the pleasing flavor is an even-handed mix of medium sweetness and mild beet taste. Roasting melds and deepens that balance. With the same tasty light green leaves and stems as golden beets, Albino can be harvested early for beet greens and tender white baby roots. Note that Albino cooks nearly twice as fast as a standard red. As Albino matures, lightly hill the soil around the roots to avoid green shoulders. ② **NEW!**
**A**=1/8oz, $2.20 **B**=1/2oz, $7.00 **C**=1oz, $12.00 **D**=4oz, $38.00 **E**=1lb, $150.00

**2128GO 3 Root Grex OG** (54 days) The genius of Alan Kapuler at work, this is an interbreeding mix of three heirlooms: Yellow Intermediate, Crosby Purple Egyptian and Lutz Saladleaf that absolutely wowed me in the trial and continues to get raves from customers. Grex, a term from orchid breeding, means that there is variation within this gene pool that continues to morph. It also means a greater extent of disagreements in our trialers' evaluations than for most of our selections. Over time we have noticed the extent of variation decrease and the flavor improve. There are three distinct colors in this gene pool: a pinkish red with some orange in it, a bright gold, and a beautiful iridescent orange. We were impressed by the unusual vigor, glowing colors and length of these gradually tapered elongated roots. The Lutz influence manifests in their size, as much as 3 1/2" across and 7–8" long. As a bonus, it produces copious quantities of greens. OT-certified. ①
**A**=1/8oz, $1.70 **B**=1/2oz, $4.40 **C**=1oz, $8.00 **D**=4oz, $22.00 **E**=1lb, $82.00

**2130BD Boldor** (55 days) While Boldor's raw cross-section is similar to delicious Golden Detroit's bright yellow and white internal zoning, Boldor's strong germination roars to life more quickly. When cooked, Boldor's meat becomes fully light orange with no striations, a blend of carroty sweetness and mild beety depth. Touchstone's flesh color may have more pop, but many of us favored Boldor in taste tests. Both Golden D and Touchstone lack Boldor's excellent uniform round rose-gold roots that have duped many into mistaking it for a hybrid. And it's hard to top its tops: Boldor has healthy short upright light green tops with gold stems and veins. ④ **NEW!**
**A**=1/8oz, $2.10 **B**=1/2oz, $7.00 **C**=1oz, $12.00 **D**=4oz, $38.00 **E**=1lb, $140.00

**Chioggia** (55 days) Also known as Bassano, for the Venetian hill town in which it originated. Has been cultivated in the States since the 1840s, was listed by Fearing Burr in 1863, and offered by Vick's for 75¢ per lb in 1877. Beautiful when sliced, this heirloom home-garden type attracts attention in the kitchen with its alternating interior rings of pink and white. Noteworthy also for its light red exterior color, green tops and exceptional sweetness. It loses quality when it gets large. Anne Elder reported that her plants were sufficiently vigorous to withstand an invasion of galinsoga.

**2136CH Chioggia** ②
**A**=1/8oz, $1.10 **B**=1/2oz, $2.00 **C**=1oz, $3.80 **D**=4oz, $9.00 **E**=1lb, $26.00

**2137CO Chioggia Guardsmark OG** All seed is held over. WA-certified. ⑤
**A**=1/8oz, $2.00 **B**=1/2oz, $6.00 **C**=1oz, $10.00 **D**=4oz, $36.00 **E**=1lb, $140.00

**2144GO Golden Detroit OG** (55 days) Sweet and delicious golden beets. Better size, vigor, taste and disease resistance than Burpee's Golden Beet. Despite its name, does not have the classic round Detroit shape. Instead, more elongated like a pyramid. No green shoulders. CCOF-certified. ③
**A**=1/8oz, $2.20 **B**=1/2oz, $7.00 **C**=1oz, $12.00 **D**=4oz, $38.00 **E**=1lb, $150.00

**2149TO Touchstone Gold OG** (55 days) A refined and reliable golden beet with long attractive green tops, Touchstone takes the guesswork out of growing golden beets. Market growers love its dependable germination and uniformly round roots that resist zoning. Like other golden beets, retains its color when cooked and has the sweet flavor prized by aficionados. Performed well even when overcrowded in my trial. Some seed is already on hand for very early orders. WA-certified. ⑤
**A**=1/8oz, $3.20 **B**=1/2oz, $12.00 **C**=1oz, $22.00 **D**=4oz, $80.00 **E**=1lb, $300.00

**2156CY Cylindra** (56 days) Also known as Forono and Formanova, a long smooth regular cylindrical beet, growing to 7", dark red, sweet and beety. Highly marketable and not at all woody, in the words of one trialer, "a fine all-around beet suitable for baking, cooking, and pickling." Roberta rates them the darkest and least fibrous of our beets. Heirloom from the 1880s, originally from Denmark. ②
**A**=1/8oz, 90¢ **B**=1/2oz, $1.50 **C**=1oz, $2.80 **D**=4oz, $5.50 **E**=1lb, $17.00 **K**=5lb, $80.00

**2170LO Lutz Green Leaf OG** (60 days) Joan Lein of Dolgeville, NY, offers this paean of praise, "Oh Lutz, Lutz, where have you been? You are so tender and sweet; a real 'keeper'." For some years after Lutz became crossed up, true seed was hard to find. Insist on the real McCoy that you will find here. True Lutz sports glossy green tops without any purple. Though the roots will never win any beauty contests, bake the big beets for about an hour to enjoy a very special sweet treat. You'll have Lutz of luck getting them to grow that way if you provide them with plenty of mellow compost, sow your seeds further apart than for other beet varieties, and thin the roots to 4" apart. Heirloom variety from Europe, also known as Winter Keeper, is the best beet to grow for winter storage. Stellar NOP-certified. ①
**A**=1/8oz, $1.90 **B**=1/2oz, $7.00 **C**=1oz, $12.00 **D**=4oz, $38.00 **E**=1lb, $125.00

**2182DD Detroit Dark Red Short Top** (60 days) "New varieties come and go, but the Detroit Dark Red, year after year maintains its popularity and holds its place right at the top of the list of good midseason varieties," asserted Stark Bros. catalog in 1921. Introduced 1892 and still the standard late variety for home gardeners and canners. Globular smooth uniform beets with tender oxblood-red flesh. This Short Top strain had the best roots in our evaluation. ②③
**A**=1/8oz, 90¢ **B**=1/2oz, $1.40 **C**=1oz, $2.50 **D**=4oz, $4.40 **E**=1lb, $13.50 **K**=5lb, $62.00

**Bull's Blood** (60 days) Prized for its spectacular leaves, not its rough flattened globe-shaped roots. Runaway winner of the 26 varieties in our beet greens trial, sweet with never a hint of oxalic aftertaste. Also clear winner in appearance, with large glossy reddish-purple leaves. No bull, it holds quality all summer, with color intensifying as it grows, especially under cool conditions in fall or under winter cover. Bull's Blood is Eliot Coleman's red leaf of choice for winter harvest salad mixes (see p. 230 of *The Winter Harvest Handbook* **9876**). Old variety; its name hints of 19th-century origins when beets were known as blood turnips. Selected around 1840 from the French variety Crapaudine for darkest-colored leaves.

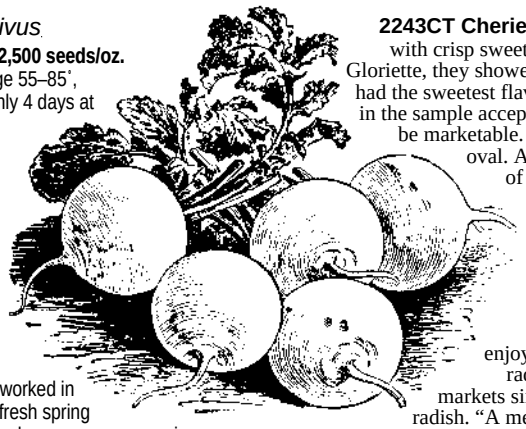
**2186BB Bull's Blood** ⑤
**A**=1/8oz, $1.10 **B**=1/2oz, $2.20 **C**=1oz, $4.00 **D**=4oz, $9.00 **E**=1lb, $30.00

**2187BO Bull's Blood OG** An improved strain with nice dark foliage, tender and sweet. WSDA-certified. CCOF-certified. ⑤
**A**=1/8oz, $1.60 **B**=1/2oz, $3.80 **C**=1oz, $6.50 **D**=4oz, $18.00 **E**=1lb, $60.00

So important are insects and other land-dwelling arthropods that if all were to disappear, humanity probably could not last more than a few months. Most of the amphibians, reptiles, birds, and mammals would crash to extinction about the same time. Next would go the bulk of the flowering plants and with them the physical structure of most forests and other terrestrial habitats of the world. The land surface would literally rot. As dead vegetation piled up and dried out, closing the channels of the nutrient cycles, other complex forms of vegetation would die off, and with them all but a few remnants of the land vertebrates."
–E.O. Wilson, *The Diversity of Life*

# RADISHES *Raphanus sativus*

**1/8 oz packet sows 12 1/2 ft, 1 oz 100 ft. Radishes average 2,500 seeds/oz.**
**Culture:** Minimum germination temperature 40˚, optimal range 55–85˚, optimal temperature 85˚. Emergence takes 11 days at 50˚, only 4 days at 68˚, 76% normal seedlings at 50˚, 97% normal at 59˚.
**Diseases:**
FY Fusarium Yellows



## Summer RADISHES

**All open-pollinated except 2212** Gloriette and **2243** Cheriette**.** Thanks to Bryan O'Hara of Lebanon, CT, for suggesting that hybrid red round radishes are "significantly more consistent and higher yielding than the open-pollinated ones." This proved completely true in my 2013 radish trial.
**Culture:** A favorite for children's gardens because quick and easy to grow with minimal fertility requirements. Summer radishes may be sown almost as soon as the ground can be worked in the spring. They emerge rapidly and grow quickly for a good fresh spring food. Thin to at least 2" for attractive uniform roots. They develop more pungency in hot temperatures and dry conditions than in cool moist weather. Most are ready for harvest at about the size of a half dollar and will rapidly get woody if allowed to grow much larger.
**Culinary:** Parboil the greens and roots separately, then eat them together as very early spring salad. And the pot liquor, mmmm…

*Note: Cannot ship greater than half oz. packets of radishes to the Willamette Valley due to quarantine.*

**2212GL Gloriette** (24 days) F-1 hybrid. Second out of the gate in my 2013 trial, more uniform than the quicker Rover. Bright red and globe-shaped, all ten specimens in my sample were acceptable and eight of them marketable. The snow-white flesh was crisp, mild and juicy on June 12 after a period of cool rains. By the solstice, with the onset of warmer weather, it had developed more heat. Strong medium-sized tops good for bunching. Good shelf life after harvest. All seed is held over. Tolerates FY. ⑤
**A**=1/8oz, $1.50 **B**=1/2oz, $4.00 **C**=1oz, $7.00 **D**=4oz, $22.00
**E**=1lb, $75.00

**2214CB Cherry Belle** (25 days) A good smooth red-skinned bunching radish making balls 3/4" across with firm white flesh. Some variation in our observation plots. 1949 AAS. All seed is held over at 94% germ. ⑤
**A**=1/8oz, 90¢ **B**=1/2oz, $1.40 **C**=1oz, $2.20 **D**=4oz, $4.40
**E**=1lb, $15.00 **K**=5lb, $72.00

**2224EE Easter Egg** (25 days) These good-sized delicious radishes do not become woody, hollow or too hot. Nor do they bolt easily. Kids and adults love this fascinating blend which comes in shades of pink, purple, red, violet and white. Always our most popular radish and favored by market growers for bunching. ⑤
**A**=1/8oz, $1.10 **B**=1/2oz, $2.10 **C**=1oz, $4.00 **D**=4oz, $9.00
**E**=1lb, $27.00

**2234CH Champion** (25 days) Smooth scarlet roots with firm mild flesh grow quickly to edible size. 1957 AAS. Some variation in our observation plots, but one customer said, "best radish I've grown in 40 years." ②
**A**=1/8oz, 90¢ **B**=1/2oz, $1.40 **C**=1oz, $2.20 **D**=4oz, $4.50
**E**=1lb, $12.50 **K**=5lb, $60.00

**2240HS Hailstone** (25 days) Last offered in 2011, now **BACK!** with a new production that is true. Vaughan, in 1904, called it "the quickest growing radish on record," and described it as round, smooth, snowy-white with a short tender taproot. Produces crisp juicy roots 1" in diameter that hold well. Unusually small foliage allows for close spacing. ③
**A**=1/8oz, $1.20 **B**=1/2oz, $2.20 **C**=1oz, $4.20 **D**=4oz, $10.50
**E**=1lb, $38.00

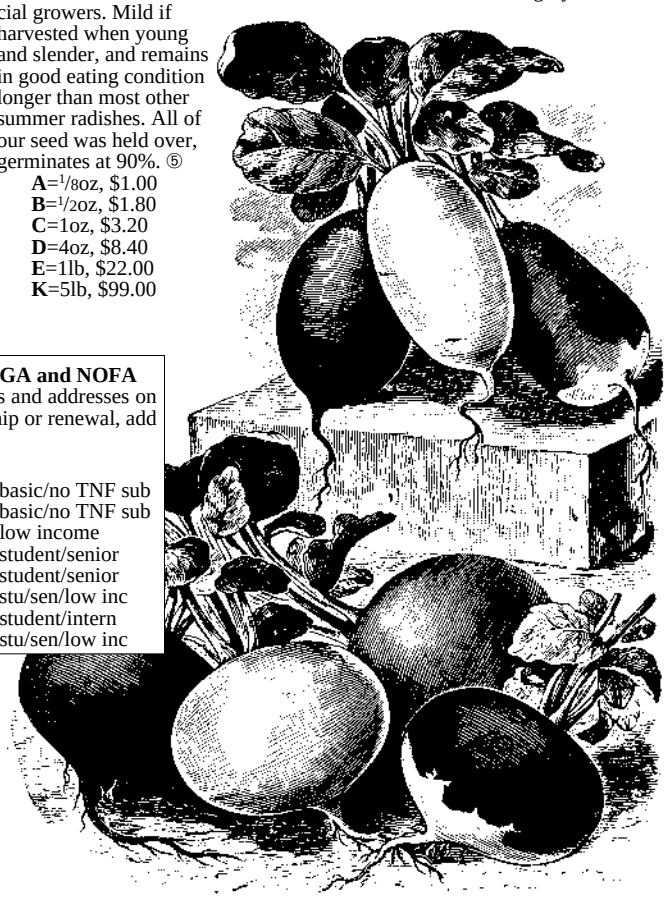
**2243CT Cheriette** (26 days) F-1 hybrid. Vibrant scarlet skins with crisp sweet white flesh. Sizing up more slowly than **2212** Gloriette, they showed the best field-holding quality in the trial and had the sweetest flavor with a mild tang. I found all ten specimens in the sample acceptable, and nine of them sufficiently uniform to be marketable. Round balls with the faintest tendency toward oval. A higher yielder and stands heat better than any of our open-pollinated selections. Short tops. All seed is held over at 94% germ. ⑤
**A**=1/8oz, $1.50 **B**=1/2oz, $4.00
**C**=1oz, $7.00 **D**=4oz, $22.00
**E**=1lb, $75.00

**2248FB French Breakfast** (26 days) Holli Cederholm says "customers know this one by name." These are not just for spring and fall enjoyment, "I can sell bunches of French Breakfast radishes all summer long." Also favored in Paris markets since before 1879, and our second-most popular radish. "A medium-sized radish, olive-shaped, small top, of quick growth, very crisp and tender, of a beautiful scarlet color, except near the tip, which is pure white. A splendid variety for the table, on account of its excellent quality and its beautiful color." —From D.M. Ferry & Co's Descriptive Catalog, 1902. Gets pithy earlier than many others. ⑤
**A**=1/8oz, $1.00 **B**=1/2oz, $1.80 **C**=1oz, $3.20 **D**=4oz, $8.40
**E**=1lb, $22.00 **K**=5lb, $99.00

**2253PO Plum Purple OG** (26 days) A new true-to-type organic production of this popular plum-colored round radish. Crisp white flesh has a good sweet taste with only a little heat. Very uniform, true to color, almost the size of a ping-pong ball. One customer who grows radishes under row covers to avoid root-maggot damage calls Plum Purple the radish most tolerant to slightly shaded row-cover conditions. Short crop; *order early*. OT-certified. ① **BACK!**
**A**=1/8oz, $1.50 **B**=1/2oz, $4.20 **C**=1oz, $8.00

**2257ZT Zlata** (30 days) A new color in summer radishes; these shimmery yellowish-tan russeted medium-sized beauties from Poland starred in our MA trial. Crunchy and crispy white interiors, spicy but not overwhelming, good fresh and even better braised. Its light-textured leaves make good young greens. Did not bolt or split and held quality even in all the June 2009 rains. Perfect for bunching. ③
**A**=1g, $1.30 **B**=4g, $4.00 **C**=14g, $8.20 **D**=28g, $14.00
**E**=112g, $48.00

**2262WI White Icicle** (30 days) Also known as Lady Finger, an heirloom listed by Fearing Burr as White Naples, White Italian and White Transparent. Firm tender all-white roots for the home garden will grow down 4–6" in all but the heaviest soils. Also used for bunching by commercial growers. Mild if harvested when young and slender, and remains in good eating condition longer than most other summer radishes. All of our seed was held over, germinates at 90%. ⑤
**A**=1/8oz, $1.00
**B**=1/2oz, $1.80
**C**=1oz, $3.20
**D**=4oz, $8.40
**E**=1lb, $22.00
**K**=5lb, $99.00



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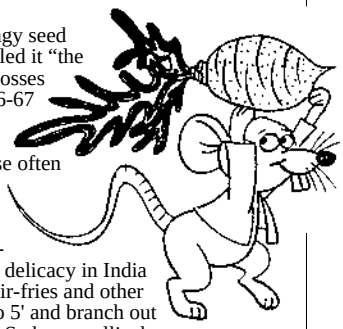
| state | individual | family | supporting | other | |
|---|---|---|---|---|---|
| VT | 30 | 40 | 100 | 15-25 | basic/no TNF sub |
| NH | 35 | 50 | 100 | 25 | basic/no TNF sub |
| MA | 40 | 50 | 250 | 25 | low income |
| RI | 30 | 40 | 50 | 20 | student/senior |
| CT | 50 | 60 | 200 | 30 | student/senior |
| NY | 40 | 60 | 125 | 20 | stu/sen/low inc |
| NJ | 40 | 70 | 150 | 20 | student/intern |
| ME | 40 | 60 | 120 | 20 | stu/sen/low inc |

"Love sitting around with the paper catalog, toast and tea on a snowy grey winter day in VT. Also love the EZ electronic group order and the huge discount."
–Kate Reimanis, South Strafford, VT

## Winter RADISHES

**All open-pollinated except 2263** Saisai Leaf and **2282** Shinden Risoh.
**Culture:** Winter radishes are slower-growing than the quick summer kind. Many grow deeper roots than summer radishes, often cylindrical in shape. Thin to 6" apart. They hold much longer than summer radishes but if they should start to bolt, pinch off the tops. Ideal in September and October from an early July planting, and can be stored for winter.

**2263SS Saisai Leaf** (35 days) F-1 hybrid. An Asian radish developed primarily to provide leaves for salads, stir-fries and pickling. Harvest the juicy pale green succulent leaves when they are young and tender. Quick growing and slow to bolt. Can be allowed to grow full-sized daikon roots for a dual use. The roots are plumper, slightly shorter and milder than **2282** Shinden Risoh with a texture that pleased Clayton Carter of Fail Better Farm. They will keep all winter in the root cellar. Plants can be densely sown if grown only for their leaves. ⑤
**A**=1/8oz, $1.30 **B**=1/2oz, $4.00 **C**=1oz, $7.00 **D**=4oz, $20.00
**E**=1lb, $60.00



**2264RT Rat-tail** (50 days) Grown for its tangy seed pods, not its roots. William Woys Weaver called it "the Don Juan of radishes" because it so readily crosses with all others. Introduced from Japan in 1866-67 by James J.H. Gregory. Attracts butterflies and other pollinators, so grow it even if you don't want to consume its pungent pods. These often grow as long as rat's tails and almost as fibrous, so garden writer Barbara Damrosch advises harvesting them at "skinny bean size like a French filet bean" for maximum tenderness. The immature purplish-green pods are a delicacy in India and Asia, adding a mustardy zing to salads, stir-fries and other dishes. Mustard and radish plants will grow to 5' and branch out as they set seed, so give them plenty of room. Stake or trellis them for ease of picking; tomato cages work well. Your objective is not a small root, but a copious supply of pods. ✿ ①⑤
**A**=1/8oz, $2.00 **B**=1/2oz, $7.00 **C**=1oz, $13.00 **D**=4oz, $30.00

**2265WR Watermelon** (55 days) If you're looking for an addition to your winter vegetable collection, these radishes will please with their consistent sweet tender flesh and brilliant color display. As the name implies, Watermelon reveals its sweet smooth bright rose flesh once you slice through the green and white skin. Growing to a robust 2 1/2" diameter in just 45 days, these precocious winter keepers are best suited for a mid-late July sowing. At full maturity, the attractive 4" long oblong roots will store for months in the root cellar, and keep their vibrant colors even when cooked. Selected from among 6 strains for their uniform coloring and daikon leaves. A real treat sliced, topped with farm butter and a pinch of sea salt. ③ **NEW!**
**A**=1/8oz, $1.20 **B**=1/2oz, $2.20 **C**=1oz, $4.20 **D**=4oz, $10.50
**E**=1lb, $38.00

**2266MB Munchener Bier** (55 days) Here is the perfect accompaniment to a good dark beer. Germans traditionally serve these mildly pungent large white tapered roots sliced thin and salted to go down with their brew, but the radishes are equally good sautéed and then salted. Gives a double harvest because the tender 2–3" aerial seedpods are good in salads and stir-fries. All seed is held over at 91% germ. ②
**A**=1/8oz, $1.50 **B**=1/2oz, $5.00 **C**=1oz, $9.00 **D**=4oz, $25.00
**E**=1lb, $80.00

**2267GM Green Meat** (55 days) Unique miniature daikon radish with striking lime-green flesh grows 6–9" long and 1–3" wide. The above-ground exposed shoulders turn a deep green while the tips remain white. Fine-grained, crisp and sweet. Carter says it has a "distinct green-apple flavor." Asians use it for salads, cooking and pickling. David Nonnenmacher suggests trying a slice on home-made bread slathered with butter. He says Green Meat and **2268** Misato Rose keep in the root cellar until May. ⑤
**A**=1/8oz, $1.80 **B**=1/2oz, $6.00 **C**=1oz, $10.00 **D**=4oz, $34.00
**E**=1lb, $120.00

**2268MO Misato Rose OG** (60 days) Also known as Chinese Red Heart radish, described in its native land as *xin li mei*, meaning 'in one's heart beautiful.' A stabilized hybrid with two variations so about half have light greenish-tan outer skins and light green stems and leaf veins, the remainder medium-rose outer skins, rose stems and leaf veins. The roots on each type have the characteristic rose flesh, the ones with the darker skins having darker and more pungent hearts. Both are fine tasting and good looking, with plenty of spiciness, a rich sweet vegetable undertone and no harsh sharpness. Will grow as large as a big beet if given sufficient space. For autumn crops, a good keeper. MT, WA-certified. ①
**A**=1/8oz, $1.70 **B**=1/2oz, $5.20 **C**=1oz, $8.40 **D**=4oz, $25.00
**E**=1lb, $85.00

**2270BS Round Black Spanish** (65 days) For some real heat, try a slice of the venerable Black Spanish. Turnip-shaped 4" roots with corklike black exteriors have extremely pungent white flesh which loses some heat when boiled or stir-fried. Can be stored like carrots and beets in slightly moistened sand in the root cellar. Dates back to the 16th-century conquistadors. ③
**A**=1/8oz, 90¢ **B**=1/2oz, $1.40 **C**=1oz, $2.20 **D**=4oz, $4.50
**E**=1lb, $12.50 **K**=5lb, $60.00

## Daikon RADISHES

*Daikon* means 'big root' in Japanese. See also **2263**, **2267**.

**2280MY White Neck Miyashige** (60 days) A delicious white Daikon radish from Japan, mild and very crisp. Grows 10–18" long with pale green neck near the crown. Best harvested at 10–14" and 2–3" diameter. Perfect for salads, fermenting and pickling. Not for spring planting. Sow in July or early August for a fall crop. Stump-rooted for storage. ⑤ **NEW!**
**A**=1/8oz, $1.30 **B**=1/2oz, $2.50 **C**=1oz, $4.00 **D**=4oz, $6.00
**E**=1lb, $18.00

**2282SR Shinden Risoh** (68 days) F-1 hybrid. Long cylindical 2 1/2 lb roots are capable of penetrating 20" in friable soils. Grows long straight roots, crisp with a full hot flavor. Cooking softens the texture, and mellows the heat. This type showed the best uniformity and the least tendency to bolt in our observation plots. Resistant to yellow wilt and virus. Heldover seed tests at 80%. Supplier has discontinued. *This is the last year we will offer. Seed in short supply; order early.* ⑤
**A**=1g, $1.50 **B**=4g, $4.00 **C**=14g, $8.00

# OTHER ROOTS

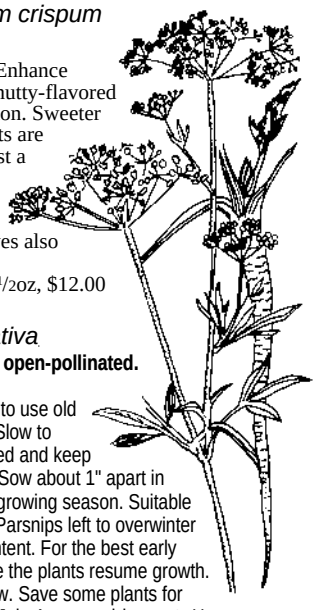
## BURDOCK *Arctium lappa*

**~1,700 seeds/oz, 27,000 seeds/lb.**
**Culture:** Culture like carrots, working the soil deeply, direct-sowing in spring and thinning to 3–6". Harvest in fall or early next spring.

**2300TG Takinogawa** (120 days) Open-pollinated. Treasured by the Japanese, who call its long fleshy aromatic taproot *gobo*. The standard Japanese variety, setting 1–2' mild earthy-tasting bittersweet roots. Small roots are peeled and used in salads, larger roots are good in stir-fries and soups. Burdock has a long history of use as a medicinal as well. Herbalist Deb Soule says that burdock root, whether eaten or used in a tea or tincture, nourishes the liver and kidneys, balances the appetite and digestion, and is useful in anti-cancer remedies. Burdock roots and seeds are also used in combating skin diseases. Think about that the next time you run into burdock as a common farmyard weed dispensing its ubiquitous nuisance burrs. ①
**A**=1/8oz, $1.60 **B**=1/2oz, $5.20 **C**=1oz, $8.40 **D**=4oz, $26.00

## ROOT PARSLEY *Petroselinum crispum*

**~18,000 seeds/oz.**



**2301AR Arat** (88 days) Open-pollinated. Enhance your soups and specialty dishes with these nutty-flavored roots redolent of a parsley-celery combination. Sweeter and more uniform than Hamburg, these roots are whoppers: they fill out well and grow almost a foot, benefiting from a deeply worked seed bed. You can sustain a harvest through much of the winter and possibly into spring if you protect them. Young flat parsley leaves also add zest. ④
**A**=1/16oz, $2.00 **B**=1/8oz, $3.80 **C**=1/2oz, $12.00
**D**=1oz, $20.00 **E**=4oz, $76.00

## PARSNIPS *Pastinaca sativa*

**1/8 oz packet sows 25 ft, 1 oz about 200 ft. All open-pollinated. About 7,000 seeds/oz.**
**Culture:** Seed is short-lived; if you are planning to use old seed, germ test in paper towels before sowing. Slow to germinate (14–21 days). Prepare a deep seedbed and keep it moist with frequent watering until emergence. Sow about 1" apart in mid-spring. Thin to 2–3". Parsnips require a full growing season. Suitable for harvest in fall after frost for late fall delights. Parsnips left to overwinter in the ground will nearly triple their fall sugar content. For the best early spring treats, harvest as soon as possible before the plants resume growth. Roots become more woody as the plants re-grow. Save some plants for seed in year 2. Plants will shoot up 6' before July-Aug. seed harvest. Homegrown parsnip seed often is better and more viable than any you can buy on the market.

Minimum germination temperature 46˚, optimal range 55–77˚, optimal at 65˚. Emergence takes 27 days at 50˚, 14 days at 68˚, 89% normal seedlings at 68˚, only 77% normal at 77˚.

**2306DO Andover OG** (120 days) Always a best-seller when we have the seed for this outstanding variety—an absolute knockout in our trials. Those with good tilth can anticipate consistent production of refined tapered cylindrical roots 12–14" long. Developed by the U. of Minnesota. One of the best for grating and stuffing into eggrolls, strudels and veggie pies. OT-certified. ①
**A**=1/8oz, $1.90 **B**=1/2oz, $5.20 **C**=1oz, $9.00 **D**=4oz, $30.00
**E**=1lb, $115.00

**2310HA Harris Model** (120 days) Sweet-flavored smooth tapered roots average 10". For better performance, prepare raised beds, especially in heavy soils. Don't believe stories that this strain is running down. It looked great in our plots. ②
**A**=1/8oz, 90¢ **B**=1/2oz, $1.60 **C**=1oz, $2.50 **D**=4oz, $5.50
**E**=1lb, $15.00 **K**=5lb, $72.00

### SALSIFY *Tragopogon porrifolius*

**Gammel Gotlands Salsify OG** (120 days) Biennial. *Not available in 2015.*

### SCORZONERA *S. hispanica*

**2322NR Noir de Russie** (120 days) Open-pollinated biennial. *Scorzonera* derives from the Spanish *corteza negra* or 'black bark.' Long narrow dark-skinned white-fleshed root is a good source of iron, phosphorus and calcium. Although not handsome, it is prized by gourmet cooks in Europe for its distinctive flavor, and used like potatoes in *haute cuisine.* Much of the flavor resides in the dark skin so do not peel before cooking. Has a firm smooth texture, not sweet like many root vegetables. Culture like parsnips, overwintering in the field and pulling as needed. Flavor improves after a hard frost. Has only limited storage in root cellars, nor does it can or freeze well so use right after harvest. Seed is short-lived; germ test old seed in paper towels before sowing. ②

**A**=1/8oz, $1.40 **B**=1/2oz, $3.50 **C**=1oz, $6.00
**D**=4oz, $20.00 **E**=1lb, $75.00

### SKIRRET *Sium sisarum*

**Skirret OG** (120 days) Open-pollinated perennial. Still no crop. *Not available in 2015.*

## TURNIPS & RUTABAGAS

**1/8 oz packet sows almost 40 ft, 1 oz about 300 ft.**
**~8,000-14,000 seeds/oz. All open-pollinated except 2377** Oasis.

**Culture:** Hardy members of Crucifer family. Thinning is critical for full-sized roots. Turnips have a shorter growing season and are not as cold-hardy or as good keepers as rutabagas. Turnips are best picked before they get large and fibrous. Rutabagas, also known as Swedish turnips or Swedes, form enlarged roots above ground with a finely branched system below.

Minimum germination temperature for turnips 40˚, optimal range 60-95˚, optimal temperature 75˚, 79% normal seedlings at 50˚, 98% normal at 59˚.

**Diseases:**
DM Downy Mildew

*Note: Cannot ship rutabagas and turnips in packages larger than one half oz. to the Willamette Valley due to quarantine.*

**2372WE White Egg Turnip** (45 days) *Brassica rapa* A staple of seed catalogs throughout most of the 19th century. Henderson in 1902 praised its perfectly smooth skin and snowy white flesh. Roots are egg-shaped, grow rapidly half out of the ground, ideal for early market bunching before they attain full size. The flesh is very sweet, so mild they can be eaten raw fresh from the garden, also good for pickling. Keeps well; flavor intensifies in storage. ②③

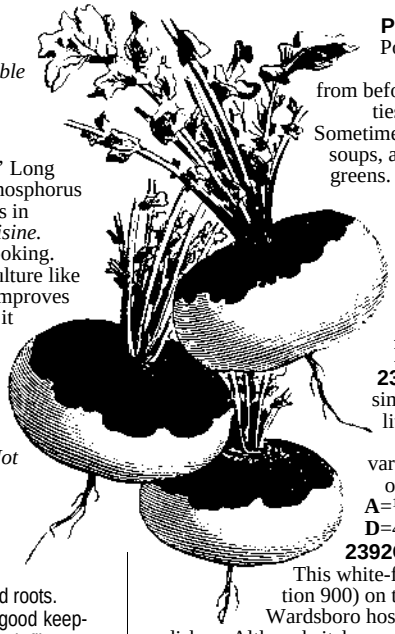
**A**=1/8oz, 80¢ **B**=1/2oz, $1.50 **C**=1oz, $2.50 **D**=4oz, $5.00
**E**=1lb, $9.50 **K**=5lb, $44.00

**2376GB Gold Ball Turnip** (45 days) *B. r.* Listed in the *Album Vilmorin* (1854-55) as Robertson's Golden Ball, also known as Orange Jelly. Not truly orange, the skin is very smooth and yellow and the soft flesh is golden-yellow. Rather broad leaves of medium height. Although the globes reach 4–5" at full size, they achieve peak flavor and maximum sweetness at 3" in diameter. Alan LePage says "better than rutabagas or any other turnip." A good keeper; he was selling them into March. Maryland market grower Brett Grohsgal concurs, Ball "comes into its own after the frosts and freezes have begun…remains mild and nutty [with] a firm, near-perfect texture. Best simmered or roasted. Pleases even those retail customers who don't really like other turnips, and a strong seller with our restaurant chefs." ②

**A**=1/8oz, 90¢ **B**=1/2oz, $1.60 **C**=1oz, $2.50 **D**=4oz, $5.00
**E**=1lb, $9.50 **K**=5lb, $44.00

**2377TR Oasis Turnip** (50 days) *B. r.* F-1 hybrid. The closest we've found to the much-sought-after Hakurei turnip, sharing many fine features: smooth round globes, refined pure white color, delicate sweet fruity flavor and crisp tender texture so suitable for salads and light cooking. Our purchaser Nikos Kavanya esteems it highly. Good for fall as well as early summer crops. Best harvested at bunching size, but retains quality for a while. From Takii in Japan. Tolerant to DM. ⑤

**A**=1/160z, $2.10 **B**=1/4oz, $6.40 **C**=1/2oz, $11.00 **D**=1oz, $20.00
**E**=4oz, $68.00 **K**=1lb, $255.00



**Purple Top White Globe Turnip** (50 days) *B. r.* Popular variety with purple tops, white bottoms and white flesh can attain 6" in diameter. An heirloom from before 1880. Starks claimed in 1921 that "other varieties are good, but this one stands in a class by itself." Sometimes used to feed livestock, but Eli and I like them in soups, and Joanna eats them up to golf-ball-sized with the greens.

**2378WG Purple Top White Globe** ②

**A**=1/8oz, 80¢ **B**=1/2oz, $1.50
**C**=1oz, $2.50 **D**=4oz, $5.00
**E**=1lb, $9.50 **K**=5lb, $44.00

**2379WO Purple Top White Globe OG** CCOF-certified. ③

**A**=1/8oz, 90¢ **B**=1/2oz, $1.70 **C**=1oz, $3.00
**D**=4oz, $6.00 **E**=1lb, $17.00 **K**=5lb, $80.00

**2384RR Red Round Turnip** (55 days) *B. r.* Very similar to Scarlet Ohno turnip, Red Round's root is a little rounder, but with the same tennis ball size and bright red skin. Inside flesh is white with a bit of variable rose blushing. Slice them on a crudité platter or use them to make a beautiful magenta kimchi. ⑤

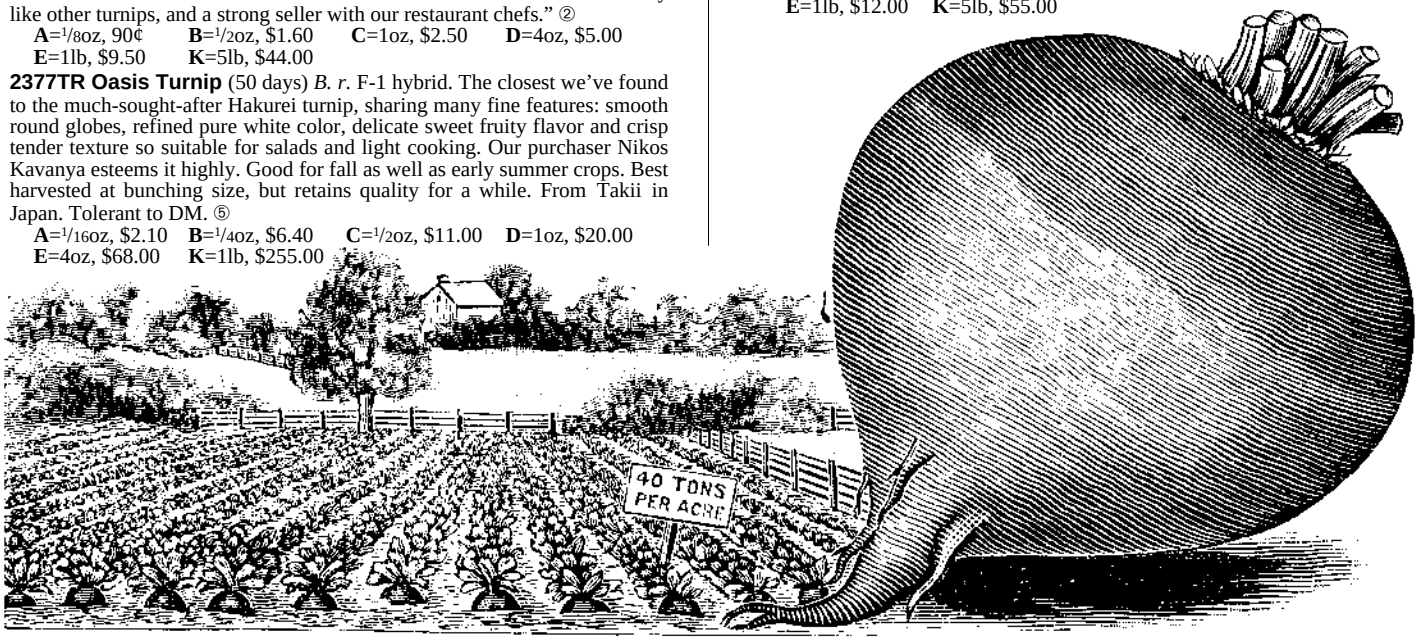
**A**=1/8oz, $1.50 **B**=1/2oz, $4.40 **C**=1oz, $7.60
**D**=4oz, $20.00 **E**=1lb, $68.00

**2392GF Gilfeather Turnip** (85 days) *B. napus x B. r.* This white-fleshed heirloom has put Wardsboro, VT, (population 900) on the culinary map. At the end of October each year, Wardsboro hosts a festival at which Gilfeather is served in all the dishes. Although it has come down in folklore as a turnip, it is really an interspecies cross between a rutabaga and a true turnip, big-knobbed and bulky with small hairy tendrils growing on its light green skin. It was either developed or discovered by John Gilfeather (1865-1944) of Wardsboro in the late 1800s. He sold them by the cartload in Brattleboro, VT, and Northhampton, MA, in the early 1900s. Although Gilfeather is said to have cut the tops and bottoms off his turnips so that no one else could propagate them, some seeds escaped to market growers William and Mary Lou Schmidt, who salvaged, multiplied and commercialized them. Sweeter and later to mature than other turnips, not woody even at softball size, and taste better after frost. Amy Burke of York, ME, suggested adding Gilfeather to our season-extending greens list. At the end of January she found them to be even hardier than Red Russian and Beedy's Camden kales. Complains Bob Crosby of Wallingford, VT, "Our governor was behind promoting kale as a state vegetable last year. I considered it nonsense. No one here had ever eaten kale before it was recently popularized. I started a letter-writing campaign to establish the Gilfeather turnip as our state vegetable. Alas, the legislature eventually dropped the issue…I consider it a shame that we do not honor this vegetable with such an interesting story." Listed on Slow Food's Ark of Taste. ❄ ①

**A**=1/160z, $1.60 **B**=1/4oz, $4.40 **C**=1oz, $12.00 **D**=4oz, $45.00
**E**=1lb, $155.00

**2398LU Laurentian Rutabaga** (95 days) *B. n.* This popular Canadian variety sports a deep purple crown and cream-yellow base. Uniform 5–6" almost neckless roots suitable for winter storage, larger and sweeter than American Purple Top. Pale yellow flesh has refined texture and taste. "The mix of a sweet cabbage flavor with a potato-ish texture," summarizes Anne Elder. ②

**A**=1/80z, 90¢ **B**=1/40z, $1.50 **C**=1oz, $2.50 **D**=4oz, $4.50
**E**=1lb, $12.00 **K**=5lb, $55.00



# ALIMENTARY ALLIA *Allium* spp.

**Diseases:**
PB Purple Blotch
PR Pink Root

**About allium seed:** We do not hold over hybrid onion seed because of precipitous decreases in germination. Onion and leek seed is short-lived. Retest 1-year-old seed before using. Discard anything older.

**Days to maturity are from date of transplanting.**

## LEEKS *A. porrum*

**All open-pollinated except for 2418 Megaton. 1 gram packet ~240-360 seeds, 1/16 oz packet ~ 400-600 seeds; 1 oz, 6,400-9,600.**

**Culture:** Start indoors in Feb. or March and transplant out in spring almost as soon as the ground can be worked. Set 6–12" apart in trenches in well-dug beds with generous quantities of organic matter. Avoid transplanting next to grass strips; slugs love to dine on tiny allium seedlings. Irrigate seedlings whenever the topsoil dries out. Early leeks have tall shanks above ground and should be harvested before severe frosts. Hardier leeks have broader, shorter shanks and will hold till November. Leeks brought into the root cellar will survive almost all winter if heeled into dirt.

Minimum germination temperature 50˚, optimum range 60-70˚, optimal temp 68˚. Emergence 13 days at 50˚, only 5 days at 68˚, 99% normal seedlings at 68˚.

**2407RO King Richard OG** (75 days) This distinctive refined early leek still rules supreme. Its elegant 1' upright shanks can be magnificent. We gave a Judge's Award to one such specimen at the 2011 Common Ground Fair. Ready in late August and can withstand light frosts. Should be harvested before those frosty moonlit nights in late October. *Seed in short supply; order early!* OT-certified. ①
**A**=1/16oz, $1.90 **B**=1/8oz, $3.60

**2408LN Lincoln** (75 days) A leek with a dual purpose, Lincoln may be sown thickly like scallions, harvested in 50–60 days and bunched as finger-thicks for upscale direct markets and discerning chefs. Or, transplanted more conventionally, they may be allowed to grow another three weeks to full size. Shanks even longer and sleeker than King Richard's with delicate sweet leek flavor. Ready in late August, will withstand light frosts, but should be harvested before late October. Tom Vigue says he gets huge shanks that can store till January. ④
**A**=1/16oz, $2.80 **B**=1/8oz, $5.40 **C**=1/2oz, $20.00 **D**=1oz, $38.00
**E**=4oz, $145.00

**2411SO King Sieg OG** (84 days) Beth Rasgorshek of Canyon Bounty in Idaho crossed King Richard with Siegfried Frost leek to create a versatile stable cultivar that has some of the good attributes of both. Sieg appears to have inherited the most from Siegfried. Its shanks are intermediate between the long King Richard and the short Siegfried, about 6" long but with a wonderful 3" thickness for a wide edible area. It also has some of Siegfried's delightful blue-green coloration and delayed maturity. Its growth pattern suggests it is a good candidate for overwintering. ☘2005. ID-certified. Ω①
**A**=1/16oz, $1.80 **B**=1/8oz, $3.40 **C**=1/2oz, $7.50 **D**=1oz, $12.00
**E**=4oz, $36.00

**2418MO Megaton OG** (90 days) F-1 hybrid. Highly recommended as the most refined consistent uniform productive easiest-to-process leek on the market. Grows dense white medium-length shanks and handsome blue-green foliage. Quick to size up in the summer without bolting, bulbing or splitting, with the classic upright growth habit that generates a straight stalk ideal for display. Ready in September with a long harvest window until nights hit 20˚. Easier to peel outer leaves than other varieties. Pricey, but a good substitute for King Richard, which is in short supply this year. A packet of Megaton, while it may not have the same impact as a million tons of TNT, will almost surely prove a better investment than a Tri-State Megabucks ticket. AB Certification-certified, a European NOP equivalent. ⑤ **NEW!**
**A**=0.2g, $3.20 **B**=0.4g, $6.20 **C**=1g, $14.00 **D**=3g, $40.00

**2421LL Lancelot** (90 days) "Great quality, disease resistance and size," says Tom Vigue. Also looked good in my 2014 Colrain plot. A dependable heavy-yielding virus-tolerant bolt-resistant open-pollinated leek. Suitable for late-fall harvest and possible overwintering in climates warmer than ours. Uniform 12–14" shafts with good thickness. ④ **NEW!**
**A**=1g, $2.60 **B**=2g, $5.00 **C**=4g, $9.00 **D**=14g, $26.00
**E**=28g, $48.00

**2425BS Bleu de Solaize** (110 days) This hard-to-find French heirloom is so-named because its dark green leaves sometimes develop a tinge of blue during cold spells. Hardy fat medium-long shanks with mild flavor good in soups. Dates back to the 19th century. Has been successfully overwintered by Adam Tomash and June Zellers and trialer Donna Dyrek with only straw mulch for protection. ②⑤
**A**=1/16oz, $1.50 **B**=1/8oz, $2.80 **C**=1/2oz, $5.50 **D**=1oz, $9.00
**E**=4oz, $28.00 **K**=1lb, $95.00

**2426GO Siegfried Frost OG** (120 days) This leek often withstands the rigors of winter to offer a delectable spring treat. Siegfried makes much of its growth below ground where it is protected from the cold. With stalks growing as much as 4" across there is plenty to enjoy even after you peel off the outer layers to get to the good stuff. Most will survive those winters with good snow cover. Hill your leeks and mulch after the ground freezes to improve your odds. Open winters with fluctuating temperatures and multiple freezes and thaws are the enemy you must overcome. WA-certified. ① **BACK!**
**A**=1/16oz, $1.80 **B**=1/8oz, $3.40 **C**=1/2oz, $7.50 **D**=1oz, $12.50
**E**=4oz, $36.00

## SCALLIONS *A. fistulosum*

Can be direct-seeded, spring or fall. For a steady market crop, seed every two weeks all season.

**2439EV Evergreen Hardy White** (65 days) Open-pollinated. Also known as Nebuka, a perennial bunching onion. If overwintered in the ground, develops clumps of scallions in the spring that can be harvested or divided and replanted. A welcome treat in April, one of the first fresh foods. Heirloom from Japan originated in the 1880s. Resists PR and SMUT. ③
**A**=1/16oz, $1.30 **B**=1/8oz, $2.40 **C**=1/2oz, $5.00 **D**=1oz, $9.00
**E**=4oz, $15.00 **K**=1lb, $58.00

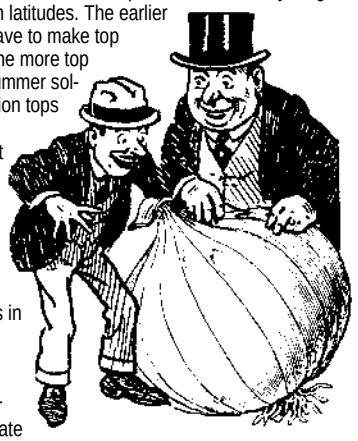
## SHALLOTS *A. cepa* (aggretatum group)

**2441PR Prisma** (100 days) F-1 hybrid. A delicious long-day shallot with a strong onion flavor. Sow inside at the same time as onions and leeks or direct seed outdoors in early spring 1/2" apart in a 2–4" wide band. For clusters sow more thinly. Each seed will produce 2–5 bulbs, red-purple with a high-gloss finish and angular edges. Always ready by September 1, still rock-hard the following April, and can last even longer. Supplier has dropped this variety; all seed is held over and tested at 91%. *This is the last year we will offer Prisma. Seed in short supply; order early.* ④
**A**=0.5g, $2.50 **B**=1g, $4.60 **C**=2g, $8.80

**2442CL Camelot** (110 days) F-1 hybrid. With Prisma going out of production, Camelot, the darkest red-skinned variety available from seed, is our choice for a good replacement with the same smooth and onion-y taste Prisma lovers have come to appreciate. When divided, has a bigger bulb than Prisma, 1–1 1/2" across and 2" long. Donna's were out of the ground curing on Sept. 20 from an April 6 start. Can store till April. Adapted to 40-55˚ latitudes. ④ **NEW!**
**A**=0.5g, $2.60 **B**=1g, $5.00 **C**=2g, $9.50 **D**=4g, $18.00
**E**=14g, $50.00 **K**=28g, $95.00

## ONIONS *A. cepa*

**Culture:** Start same as for leeks except set onions 4–6" apart. Onions are day-length sensitive. Long-day types are for northern latitudes. The earlier they are set out, the more chance they have to make top growth while the days are lengthening. The more top growth, the greater the bulb size. After summer solstice they begin bulbing. After half the onion tops fall, push over the remainder and harvest within a week. Field-cure in the sun about 10 days until dry, covering with a tarp in wet weather. Curing is essential for long storage. Hang sacks in a cool dry well-ventilated place, periodically removing sprouting or rotting bulbs. Onions survive light frosts. When it begins to warm up in spring, put your remaining storage onions in your refrigerator crisper. Most will keep without sprouting until your new crop is ready.



Germination temperatures same as for leeks except that because onions germinate poorly in temperatures above 70˚ we discourage the use of bottom heat.

**2444CW Crystal White Wax** (70 days) Open-pollinated. Unlike most onions, these can be direct-seeded in spring with the peas. Then the 1 1/2" pearly white bulbs ripen with the peas for early summer baby onions or pickles. Resists PR. ②
**A**=1/16oz, $1.40 **B**=1/8oz, $2.50 **C**=1/2oz, $5.50 **D**=1oz, $9.50
**E**=4oz, $16.00 **K**=1lb, $60.00

**2446RM Red Marble** (95 days) F-1 hybrid. When the Cipollinis are down, this hard red variety is the best of its kind. Alan LePage loves how hard they are and how fast they finish. While they can be closely spaced to grow 1–2" baby red pearl onions, they can also be spread apart to make full-sized onions 2–3" across with the characteristic Cipollini flat bottoms and thin necks. A few will grow as big as 4" in fertile conditions. Dark red penetrates deep into the rings. LePage observes that unlike yellow Cipollinis, they always sell well when he displays them at farmers market. "Their stony polished red skin just shines when they are fully finished." Excellent keepers, they store till February or March. Long-day type for northern latitudes above 40˚. Seed is film-coated. ④
**A**=1/16oz, $1.70 **B**=1/8oz, $3.20 **C**=1/2oz, $9.00 **D**=1oz, $16.00
**E**=4oz, $60.00

**2447WW Whitewing** (97 days) F-1 hybrid. Sales took wing after we finally did this handsome white onion justice in our catalog. Its firm, almost perfectly round 1 lb bulbs with slender strong necks will boost almost anyone's market. Trialer Donna Dyrek, who is lavish in their praise, grew them even bigger, up to 1½–2 lb in 2012, an outstanding year for onions. Very early and well adapted to our climate, Wing can be harvested as soon as late July and its tops went down in 2012 by Aug. 20. In a cooler season they stand till Sept. 1. Hard, pleasantly pungent and moderately sweet. Not a great keeper; with proper curing can last till New Year's. Intermediate to long day-length suitable for mid-Atlantic and northern areas. ④
**A**=1/16oz, $1.90 **B**=1/8oz, $3.60 **C**=1/2oz, $14.00 **D**=1oz, $26.00 **E**=4oz, $100.00

**2449YO New York Early OG** (98 days) Open-pollinated. Superior strain of Early Yellow Globe selected for storage until early spring. New York Early was maintained by Orange County, NY, commercial onion growers. Very firm mild yellow onions may be eaten raw in salads or sandwiches. They average 2½–3" across and store longer than Early Yellow Globe. Adapted from 38˚ latitude to southern Quebec/Ontario. OT-certified. ①
**A**=1/16oz, $1.80 **B**=1/8oz, $3.40 **C**=1/2oz, $7.50 **D**=1oz, $12.50 **E**=4oz, $36.00 **K**=1lb, $140.00

**2454EX Expression** (98 days) F-1 hybrid. In this final call for you to express interest, we present the following testimonials: says Janine Welsby from Wellsville, OH, "I tried Expression for the first time last year and was highly impressed. I sold them as green tops when they were between tennis and baseball size and my customers clamored for them. I haven't been able to eat any onions raw for years, but I was delighted to find that these sweet juicy globes did not bother my stomach at all. Several customers have said the same. They look so gorgeous when cleaned and trimmed for market." "I'd hate to see you drop Expression onion," says Ervin Melulini of Coyote Hill Farm in Bernardston, MA. "A nice big and sweet onion that holds fairly well" with intermediate to long day-length (suitable for middle Atlantic and northern areas), heft (the large light brown globes average about 12 oz) and flavor. Bred by Bejo for high yields in rich clay loamy soils in the Northeast and PA. Short to medium storage. Has 1% red off-types. PR- tolerant. ④
**A**=1/16oz, $1.90 **B**=1/8oz, $3.60 **C**=1/2oz, $14.00 **D**=1oz, $26.00 **E**=4oz, $100.00

**2472CP Copra** (104 days) F-1 hybrid. These rock-hard yellow-skinned medium-sized onions with blocky round shapes and thin necks have become the standard storage onion for commercial growers and homesteaders. Very sweet in storage and one of the last to sprout. Jason Kafka has found that Copra is more drought-tolerant than other varieties. Adaptation: 38˚ latitude and north. ④
**A**=1/16oz, $2.00 **B**=1/8oz, $3.80 **C**=1/2oz, $13.00 **D**=1oz, $24.00 **E**=4oz, $88.00 **K**=1lb, $320.00

**2474DO Clear Dawn OG/BD** (104 days) Open-pollinated Clear Dawn was bred out of Copra and introduced by Beth and Nathan Corymb of Meadowlark Hearth after being entrusted to them by biodynamic growers Claire Hall and Don Jason. We have 3 growers for this important crop this year. The best open-pollinated storage onion, Dawn is slightly smaller than Copra with thicker necks, darker bronze skins and the same great storage capability. 8–10 oz average and very hard. Certified bio-dynamically grown. Stellar NOP, OT-certified. ①
**A**=1/16oz, $1.90 **B**=1/8oz, $3.60 **C**=1/2oz, $12.00 **D**=1oz, $20.00

**2477BC Borrettana Cipollini** (105 days) Open-pollinated. Sweet, dependable, easy to handle and delectable, this Italian heirloom is the quintessential boiling and braising onion. Shaped like a button, up to 4" wide (normally 3") but less than 1" thick. Flattened spheres with shiny golden skin slightly brighter than Copra's. Fine-grained mild flesh with a well-developed flavor. Appreciated in soups, stir-fries and shish kebab. Braids beautifully and keeps till late winter. Adapted to 38˚ latitude and north. ②
**A**=1/16oz, $1.60 **B**=1/8oz, $3.10 **C**=1/2oz, $7.50 **D**=1oz, $13.00 **E**=4oz, $40.00 **K**=1lb, $140.00

**2479PR Prince** (105 days) F-1 hybrid. Several commercial growers requested Prince, an outstanding storage onion from the same breeder as Copra. Prince is slightly larger than Copra and stores almost as long. A long-day type adapted to northern latitudes, Prince features classy uniform blocky large globes with vigorous tops that finish off to refined necks. Its satiny brownish-yellow skins adhere well even after long storage. ④
**A**=1/16oz, $2.20 **B**=1/8oz, $4.20 **C**=1/2oz, $16.00 **D**=1oz, $30.00 **E**=4oz, $110.00

**2484AC Ailsa Craig** (110 days) Open-pollinated. Also known as Exhibition. The onion made famous by Jason Kafka. Usually he produces tons of 1–3 lb onions from this variety, achieving yields well in excess of 1 lb per row foot and production multiples that Wall Street can only dream about. As might be inferred from its alias, year after year astounding specimens are exhibited at Common Ground Fair. The enormous slightly oval pale straw-colored globes are sweet, mildly pungent and store but a short while. A cross between Danvers Yellow and Cranston's Excelsior introduced by David Murray in 1887, Ailsa Craig was named after Ailsa Crag, a small steep-sided island off the west coast of Scotland. Adapted to 38˚ latitude and north. ④
**A**=1/16oz, $2.10 **B**=1/8oz, $4.00 **C**=1/2oz, $14.50 **D**=1oz, $27.00 **E**=4oz, $100.00

**2485RT Rossa Lunga di Tropea** (110 days) Open-pollinated. My father helped design torpedos in World War II, but none like this, the famous Italian heirloom torpedo onion. The name means Long Red of Tropea, and Tropea, in Calabria near the southern tip of Italy, is the site of a famous onion festival every August. Elongated like torpedos, these are thin-skinned glossy maroon bulbs with lighter interiors that slice easily into even rings. Sweet, mild and delicious for fall enjoyment. Plants died back in the first week of October for Donna Dyrek, will finish earlier if started indoors March 1. Excellent bunched fresh for farmers market in midsummer. Restaurant chefs love them for grilling or braising. Though we do not rate it as a winter keeper, it was still rock hard one Jan. 18 for Elaine Gambone of Plymouth, VT. Intermediate to long day for middle latitudes: 35–48˚. ②
**A**=1/16oz, $1.60 **B**=1/8oz, $2.80 **C**=1/2oz, $6.20 **D**=1oz, $10.00 **E**=4oz, $30.00 **K**=1lb, $110.00

**2488VS Varsity** (110 days) F-1 hybrid. Rooting (pun intended) for this Varsity is easy because it is the champion large yellow storage onion every year—big, early, uniform and hard. Made the first team of favorite varieties at Peter Maurin Farm, a Catholic Worker community in Marlboro, NY. Sits down in mid-September. Bulbs up to 1½ lb (12–16 oz average) are nearly as big as Ailsa Craig, with a nice round shape and few doubles, and they store as well as or better than Copra. Our onion maven Donna Dyrek chooses Varsity as her #1 storage onion worth cheering for! Susceptible to PB. Practice extreme sanitation as a preventive. ④
**A**=1/16oz, $2.10 **B**=1/8oz, $4.00 **C**=1/2oz, $14.50 **D**=1oz, $27.00 **E**=4oz, $100.00 **K**=1lb, $380.00

**2489DO Dakota Tears OG** (112 days) Open-pollinated long-day type. Another Dave Podoll breeding coup, Dakota Tears was more than 20 years in the making. Though you might cry when you cut one open—their flavor is robust and oniony—you won't weep about their impressive production of very hard yellow bulbs with medium-thick necks averaging 1 lb each with no doubles. These matured in late September from an early April start (March would be a more appropriate starting date in our latitude) and stored well for Dyrek. Holli Cederholm says hers keep till May under good storage conditions. ☙2009. ICS-certified. Ω ①
**A**=1/16oz, $1.70 **B**=1/8oz, $3.00 **C**=1/2oz, $8.50 **D**=1oz, $16.00 **E**=4oz, $52.00

**2490RM Rossa di Milano** (114 days) Open-pollinated. "The most delicious of all the onions I've grown," says Tom Vigue. This excellent red Italian storage onion is shaped like a buttercup squash without the button. It has the flat square-shouldered top tapering like a barrel to a narrower flat bottom. Tops slow to go down. Encourage the recalcitrant ones by pushing them over. Takes a while in fall to dry. Very hard and keeps a long time, till May for Cederholm and Vigue. Long-to-intermediate–day type. ②
**A**=1/16oz, $1.60 **B**=1/8oz, $2.80 **C**=1/2oz, $6.20 **D**=1oz, $10.00 **E**=4oz, $30.00 **K**=1lb, $110.00

**2491RW Redwing** (116 days) F-1 hybrid. Kafka's favorite onion, achieving an average size of 12–16 oz and yields in excess of l lb per row foot in good seasons. They like wet springs followed by warm or hot summers and plenty of nitrogen, usually finishing nicely in the 3rd week of September. Very hard globe-shaped 3–4" bulbs with deep purple-red glossy skin keep almost as well as Copra. Rated the ultimate red storage onion. *Caution: because of its long season, may not grow well in some cool or coastal areas.* Adapted to 43˚ latitude and north. ④
**A**=1/16oz, $2.90 **B**=1/8oz, $5.60 **C**=1/2oz, $22.00 **D**=1oz, $42.00 **E**=4oz, $160.00

**2493RB Red Bull** (118 days) F-1 hybrid. Long-day type. No bull, Red Bull is one good storage onion. These ultra-hard large red globes will keep until May. Shinier and darker than Rossa di Milano and red through and through. 3–4" roots with strong tops average 8 oz. Dyrek rates her Red Bull as very red, very big and very nice. They are slow to quit growing and often won't sit until Oct. 1 so *may require too long a season for most of Central Maine and areas farther north.* ④
**A**=1/16oz, $2.60 **B**=1/8oz, $5.00 **C**=1/2oz, $19.00 **D**=1oz, $36.00 **E**=4oz, $140.00

**2498WW Walla Walla Sweet Spanish** (125 days) Open-pollinated. Said to have originated in the French island of Corsica and been brought to Washington by a French soldier, this onion became famous in the Pacific Northwest for its juicy sweet flavor. In Walla Walla, WA, it can be wintered over. In our harsher zone, it must be sown in the spring for fall harvest. These large onions are renowned for their mild flavor as soon as they come out of the ground. They do not store. Adapted to 35-55˚ latitudes. ①
**A**=1/16oz, $1.50 **B**=1/8oz, $2.70 **C**=1/2oz, $6.00 **D**=1oz, $9.60 **E**=4oz, $26.00 **K**=1lb, $95.00

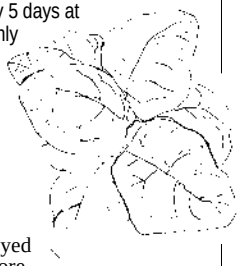
# SPINACH *Spinacia oleracea*

**¼ oz packet sows 30–50 ft; 1 oz plants 120–200 ft; 1,400-2,600 seeds/oz.**

**Culture:** Very hardy. Must be planted as soon as the ground can be worked in the spring to avoid early bolting. For fall crop try late July–Aug. sowing; to overwinter, sow late Aug.–Sept. Heavy nitrogen requirements, but avoid applying high-nitrogen fertilizers shortly before harvest to prevent high nitrate levels in the leaves. Pick large leaves often for heavier production.

Smooth-leaved spinach is easier to wash than the semi-savoyed type and is increasingly preferred as attested by our huge sales of **2510** Space. Heat, crowding and long day-length (over 14 hours) trigger premature bolting. To retard bolting, avoid hot-weather planting, use wider spacing and irrigate or use shade cloth.

Minimum germination temperature 35˚, optimal range 45–65˚, optimal temps 55–60˚. Emergence takes 23 days at 41˚, 12 days at 50˚, only 5 days at 77˚; however 91% normal seedlings at 50˚, 82% at 59˚, but only 52% at 68˚ and a mere 28% at 77˚. Spinach seed will not germinate in soil temperatures above 85˚.



**Diseases:**

BM Blue Mold
CMV Cucumber Mosaic Virus
DM Downy Mildew

**2510SP Space** (37 days) F-1 hybrid. Regularly sells more than 4,000 packets per year. Produces the kind of vigorous big thick wavy mostly smooth slightly savoyed leaves that market growers love and restaurant chefs adore. Relatively long-standing when sown in early spring. Vigorous at all times, it was the quickest to mature from a fall planting. Upright growth results in good clean dark green leaves with a juicy sweet taste. Resistant to DM1,2,3. ❄ ④

**A**=¼oz, $1.50 **B**=½oz, $2.70 **C**=1oz, $4.80 **D**=4oz, $10.00
**E**=1lb, $28.00 **K**=5lb, $125.00

**2512LY Olympia** (38 days) F-1 hybrid. Always stands as strong in November as our former Senator Olympia Snowe. An outstanding performer for the fall crop and even early winter but not as hardy as **2558** Winter Bloomsdale, Olympia grows fast, producing enormous yields of mostly smooth leaves up to 5x6" almost entirely lacking in oxalic-acid taste, so her mild flavor goes down easily. But Olympia can't stand the heat and bolts quickly when planted in spring. All seed held over; germs at 82% or better. Resistant to DM1,2,3. ❄ ⑤

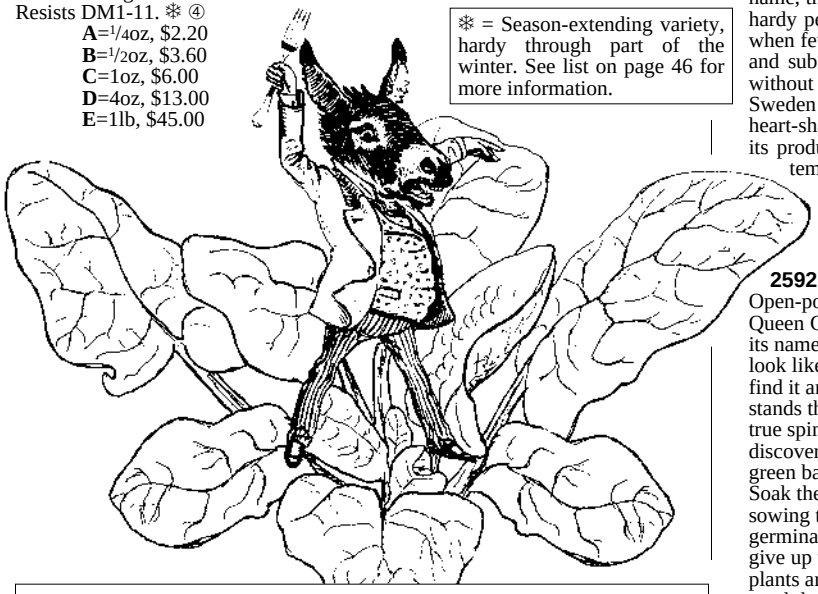
**A**=¼oz, $1.30 **B**=½oz, $2.40 **C**=1oz, $4.20 **D**=4oz, $8.00
**E**=1lb, $25.00 **K**=5lb, $110.00

**2536DK Donkey** (42 days) F-1 hybrid. Hee-haw, Donkey returns in all sizes. I never expected to find a spinach that would best **2550** Tyee, but Donkey did just that, growing slightly faster and holding about one day longer. I loved the darker green color of its leaves and their amazing ability to bounce back after a heavy picking. More pleasing in appearance, more uniform with fewer weak plants than Tyee. No discernible difference in flavor. Like Tyee, savoyed leaves. Suitable not just for spring sowing, Donkey germinated well in an early January sowing in an unheated high tunnel in Belfast, ME, and grew impressively right into spring tolerating all the winter highs and lows.

Resists DM1-11. ❄ ④

**A**=¼oz, $2.20
**B**=½oz, $3.60
**C**=1oz, $6.00
**D**=4oz, $13.00
**E**=1lb, $45.00

❄ = Season-extending variety, hardy through part of the winter. See list on page 46 for more information.



**Supplier Codes** Know where your seed comes from! See page 5 for details.
① Small seed farmers including Fedco staff.
② Family-owned companies or cooperatives, domestic and foreign.
③ Domestic and foreign corporations not part of a larger conglomerate.
④ Multinationals not to our knowledge engaged in genetic engineering.
⑤ Multinationals who are engaged in genetic engineering.
⑥ Manufacturers of neonicotinoids: Bayer and Syngenta.

**Bloomsdale** (42 days) Open-pollinated. The standard crinkled-leaf spinach. Very good cold soil emergence. Much better in fall than in spring when it bolts in the heat. Recent hybrids surpass it in production and bolt resistance. David Landreth, founder of the Landreth Seed Company, developed the original Bloomsdale Spinach, forerunner of this type. ❄

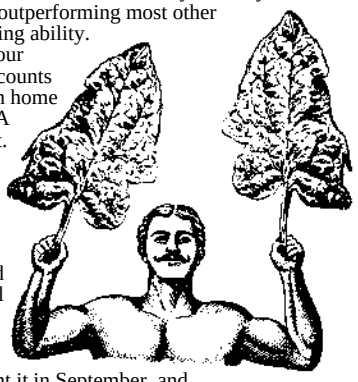
**2540LS Bloomsdale** ②

**A**=¼oz, 90¢ **B**=½oz, $1.40 **C**=1oz, $2.20 **D**=4oz, $4.40
**E**=1lb, $13.00 **K**=5lb, $60.00

**2541BO Bloomsdale OG** CCOF-certified. ③

**A**=¼oz, $1.50 **B**=½oz, $2.80 **C**=1oz, $5.00 **D**=4oz, $12.50
**E**=1lb, $46.00 **K**=5lb, $220.00

**2550TY Tyee** (44 days) F-1 hybrid. What do you sow when mud season turns overnight to summer as it so often has in recent years? Tyee is the choice when the heat comes on fast, outperforming most other savoyed types both in yield and holding ability. This dependability has long made it our favorite crinkled-leaf spinach and accounts for its widespread appeal among both home gardeners and commercial growers. A spinach for all seasons. Upright habit. Tolerant to DM1,3. ❄ ⑤



**A**=¼oz, $1.50 **B**=½oz, $2.60
**C**=1oz, $4.80 **D**=4oz, $10.00
**E**=1lb, $32.00

**2555GW Giant Winter** (45 days) Open-pollinated. Selected for its cold hardiness. Recommended for late fall crops, winter greenhouse crops, or overwintering under mulch. Large medium-green semi-savoyed leaves. "Giant Winter is a favorite…We plant it in September, and in our unheated greenhouse it easily survives the few 0˚ nights of January and comes on strong all through the early spring," says Michael Goldman of Florence, MA. ❄ ②

**A**=¼oz, $1.40 **B**=½oz, $2.50 **C**=1oz, $4.00 **D**=4oz, $10.00
**E**=1lb, $30.00

**2558WO Winter Bloomsdale OG** (47 days) Open-pollinated. Dark green deeply savoyed leaves are slower growing with a more spreading habit than other varieties. Recommended for early spring and fall plantings because it tolerates temperature extremes better than some hybrids. Ideal for wintering over. Resistant to CMV and BM. WA-certified. ❄ ①

**A**=¼oz, $1.50 **B**=½oz, $2.80 **C**=1oz, $5.00 **D**=4oz, $12.50
**E**=1lb, $46.00 **K**=5lb, $220.00

## SPINACH SUBSTITUTES

**2590CM Caucasian Mountain Spinach** *Hablitzia tamnoides* Perennial, Zones 3-6. After three decades of evaluating vegetables, I am fairly immune to new enthusiasms. So, when a young homesteader invited me to look at the next big thing, I thought, Well, it's a nice day to stroll in a spring garden. But upon arriving I was wowed! Too new to have an agreed-upon common name, this plant has everything else. Originating in the Caucasus, it is a very hardy perennial, growing 6–9' long for 2–3 months in the very early spring when few other edible greens have surfaced. It's also tasty: both early shoots and subsequent leaves make a delicious and tender spinach-like vegetable without any bitterness. Moreover, it's beautiful—originally introduced into Sweden around 1870 as an attractive vine to screen manor houses with its heart-shaped leaves. And, finally, though it is best grown in sun to maximize its productivity, it will also do well in its native habitat, the understory of temperate forests. Best germinated with stratification, and slow-growing in the first year, CMS is destined to make a name for itself. ~1,360 seeds/g. ① **NEW!**

**A**=0.1g, $2.20 **B**=0.2g, $4.00 **C**=0.4g, $6.00
**D**=1g, $12.00 **E**=4g, $40.00

**2592NZ New Zealand Spinach** (52 days) *Tetragonia tetragonioides* Open-pollinated. Captain Cook's voyagers noted it in 1770 on the shores of Queen Charlotte's Sound in New Zealand. Don't be fooled by the spinach in its name; this is not a true spinach. Doesn't look like one or taste like one, though some find it an acceptable substitute because it stands through the hot summer when true spinach bolts. Chefs have discovered that it is a very good green baked, especially in lasagna. Soak the nut-like seeds before sowing to speed and improve germination. Be patient and don't give up too soon. Only a few plants are needed to fill in your patch because Tetragonia sprawls. Irrigate frequently and pick often to keep the leaves tender and succulent and to avoid yellowing. Will withstand frosts to the low 20s. ~350 seeds/oz. ②

**A**=¼oz, $1.10 **B**=½oz, $2.00
**C**=1oz, $3.50 **D**=4oz, $6.50
**E**=1lb, $19.00 **K**=5lb, $90.00

# LETTUCE *Lactuca sativa*

**1 gram packet sows 25 ft; 2 grams, 50 ft; 1 oz, 500–700 ft. Varieties average 875 seeds/1g pkt, or 1,750 seeds/2g packet. All lettuce is open-pollinated.**

**Culture:** May be started indoors in March and at regular intervals thereafter, or sowed outdoors as soon as ground can be worked. Many varieties won't germinate in soil temperatures above 75˚ and most shut down above 80˚. Where available, we present data here from a California germination experiment at 84˚.

Hardy. All save icebergs tolerate heavy frost. Grow best in cool weather with ample moisture, many kinds suffer bottom rot and tipburn in heat; select summer varieties carefully. Use shade cloth to keep summer lettuce tender and sweet longer.

Sow every 2 weeks for continuous supply. Lettuce will not head unless thinned frequently and ruthlessly to final distance of 1'. Heavy nitrogen feeders.

Look for the snowflake symbol ❄ after each cultivar description for indication that a variety is hardy through at least a part of our Maine winter.

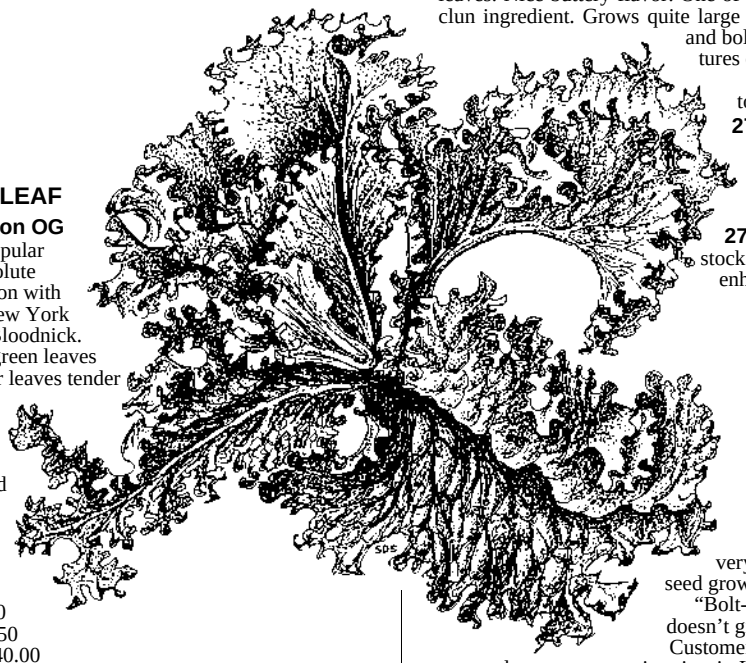
Minimum germination soil temperature 35˚, optimal range 40-80˚, optimal temperatures 70-75˚, emergence takes 15 days at 41˚, 7 days at 50˚, 3 days at 68˚, 99% normal seedlings at 77˚ but only 12% normal at 86˚.

**Days to maturity are from direct seeding.**

**Diseases:** For more information see the sidebar on p. 41.

| | |
|---|---|
| BOR | Bottom Rot |
| DM | Downy Mildew |
| LMV | Lettuce Mosaic Virus |
| PM | Powdery Mildew |
| SC | Sclerotinia |
| TB | Tipburn |
| X | Xanthemonas |

## LOOSELEAF and OAKLEAF



**2712BO Black Seeded Simpson OG** (42 days) The earliest and most popular looseleaf variety. "One of our absolute favorites for early season production with heads up to 16" diameter," says New York State market lettuce grower Lisa Bloodnick. Large loose crumpled juicy light-green leaves slightly ruffled and blistered. Inner leaves tender and well blanched. Does not stand heat well; sow as early as the ground can be worked. Probably originally from England circa 1850, this heirloom was introduced by Peter Henderson & Co. of New York around 1875. Germination showed some tolerance to warm temperatures. Resists DM and TB. CCOF-certified. ③

**A**=2g, $1.10 **B**=4g, $2.00 **C**=14g, $3.50 **D**=28g, $5.50 **E**=112g, $12.00 **K**=448g, $40.00

**2713GO Green Ice OG** (45 days) We again have a full organic production of Burpee's well-known variety, a cross between a compact butterhead type and large looseleaf varieties that was thirteen years in the making and was the first variety patented under the 1970 Plant Variety Protection Act. Its PVP has long since expired. This shiny crinkly looseleaf with fringed leaf margins is firm and crunchy in salads. Slow to bolt, but gets tough in the centers. MT-certified. ①

**A**=1g, $1.70 **B**=2g, $3.20 **C**=4g, $5.00 **D**=14g, $7.00 **E**=28g, $10.00 **K**=112g, $36.00

**2715LO Balady Aswan OG** (45 days) An ancient form of native Egyptian celtuce that is customarily allowed to bolt and enjoyed for its 12–14" crunchy stems with creamy flavor. Its sweet emerald-green leaves resemble those of **2716** You Mai Tsai but not quite as pointy. They make a tall rosette, taste like regular lettuce leaves without bitterness and can be harvested anytime, remaining sweet and crispy like **2731** Cracoviensis even after bolting. Aswan began bolting only 3–4 weeks after its June 17 transplanting. Frank Morton says celtuce was a symbol of virility in ancient hieroglyphs but we make no unsubstantiated claims for this unusual lettuce. OT-certified. ① **NEW!**

**A**=1g, $2.30 **B**=2g, $4.20 **C**=4g, $8.00 **D**=14g, $15.50 **E**=28g, $30.00 **K**=112g, $110.00

**2716YM Yu Mai Tsai** (45-60 days) Also known as Sword Leaf or Pointed Leaf lettuce. Interest is slowly increasing in this novelty distinguished by its long thin sword-shaped bright green frilly leaves often snipped, bundled and banded at Chinese markets where it is referred to as "a choy." A very popular vegetable green in Taiwan and often used in Cantonese cuisine. Harvest its tender and crispy leaves and stems at an early stage when they impart a bitter and robust flavor quite different from typical American lettuce. Good in salads, soups, stews and stir-fries. Vigorous grower bolts in hot weather, but adapted to late summer and early fall plantings. ③

**A**=1g, 90¢ **B**=2g, $1.70 **C**=4g, $3.20 **D**=14g, $6.60 **E**=28g, $10.00

"I hate shopping but I love shopping for seeds at Fedco!"
–Sally Robertson, Chapel Hill, NC

**2719BO Bronze Arrowhead OG** (46 days) This Arrowhead scores a bullseye for form and color, developing a gorgeous oakleaf rosette in a dance of green and bronze. Introduced as Bronze Beauty by the Germania Seed & Plant Co, this bronze was given a bronze medal by the AAS judges in 1947. A good variety for mesclun and cut-and-come-again culture. Very slow to bolt. OT-certified. ①

**A**=1g, $1.40 **B**=2g, $2.60 **C**=4g, $4.00 **D**=14g, $7.00 **E**=28g, $12.50 **K**=112g, $45.00

**Salad Bowl** (46 days) Bright-green frilly notched leaves form compact rosette. Stands heat better than Black Seeded Simpson, but at its best in cool weather, not summer. 1952 AAS bred by Ross Thompson of the USDA. Has survived outside temperatures of 18˚ double-covered under Agribon 19.

**2722SB Salad Bowl** ②

**A**=2g, 90¢ **B**=4g, $1.50 **C**=14g, $2.50 **D**=28g, $3.80 **E**=112g, $7.00 **K**=448g, $18.00 **L**=5lb, $82.00

**2723SO Salad Bowl OG** CCOF-certified. ③

**A**=2g, $1.10 **B**=4g, $2.00 **C**=14g, $3.50 **D**=28g, $6.50 **E**=112g, $12.50 **K**=448g, $46.00 **L**=5lb, $220.00

**Red Salad Bowl** (46 days) Compact frilly rosettes of spectacular bronze-red oakleaves. Red at tips and on young growth, green at the base of the leaves. Nice buttery flavor. One of our most popular lettuces. A staple mesclun ingredient. Grows quite large in cool weather, but prone to bitterness and bolting in heat. Withstood outdoor temperatures of 14˚ double-covered under Agribon 19. Some warm-temperature germination tolerance. Introduced in 1955. Resists TB.

**2728RS Red Salad Bowl** ②

**A**=2g, 90¢ **B**=4g, $1.50 **C**=14g, $2.50 **D**=28g, $3.80 **E**=112g, $7.00 **K**=448g, $18.00 **L**=5lb, $82.00

**2729RO Red Salad Bowl OG** Improved stock featuring darker more vibrant leaves and enhanced PM resistance. CCOF-certified. ③

**A**=2g, $1.10 **B**=4g, $2.00 **C**=14g, $3.50 **D**=28g, $6.50 **E**=112g, $12.50 **K**=448g, $46.00 **L**=5lb, $220.00

**2731CO Cracoviensis OG** (47 days) My absolute favorite of all the lettuces Seed Savers curator M. Schultz shared, unlike any other in size, shape or colors. Cracoviensis is where the red meets the green, making a dazzling twisting rosette with heavy purple accenting, especially towards the center. Plants grow fast and very large and quickly send up seed stalks (a seed grower's dream), even called by Scott Paquin "Bolt-o-viensis," but their tender buttery flavor doesn't give way to bitterness even after they bolt. Customers in New Jersey and Massachusetts have reported success overwintering it. Listed as a distinct type, Asparagus Lettuce, in *The Vegetable Garden* by Vilmorin-Andrieux (1885). Highly prized in China where they peel and eat the thick fleshy stems like asparagus, a practice that restaurant chefs have adopted here. ☘1996. OT-certified. ①

**A**=1g, $1.40 **B**=2g, $2.60 **C**=4g, $4.00 **D**=14g, $7.00 **E**=28g, $13.00 **K**=112g, $48.00

**2732GO Strela Green OG** (47 days) From Alan Kapuler via Schultz. Nikos likened the rough-textured green leaves to donkey ears. We had never seen anything quite like its large star-shaped rosette. According to Schultz, "pointed spear-shaped leaves erupt from the center like an explosion, spectacular and decorative." Sweet and without bitterness, Strela performed well in summer plantings, withstanding meager heat waves with aplomb. OT-certified. ①

**A**=1g, $1.50 **B**=2g, $2.80 **C**=4g, $5.20 **D**=14g, $8.00 **E**=28g, $13.00

**2738AO Antares OG** (48 days) A shimmery pink and bronze oakleaf growing vigorously to magnificent size. The extra-frilled finely cut bright leaves are colorful and tender, not bitter even in early July. Antares puts on a terrific show especially when started indoors, transplanted early in spring and allowed ample space. Bred by Frank Morton of Wild Garden Seed in Oregon out of a combination of **2722** Salad Bowl and **2865** Rouge d'Hiver. OT-certified. Ω ①

**A**=1g, $1.70 **B**=2g, $3.20 **C**=4g, $5.50 **D**=14g, $11.00 **E**=28g, $19.00 **K**=112g, $55.00

Ω **Independent plant breeders**, continuing a long tradition of adapting varieties to local tastes and conditions, are the backbone of culture. For the most part eschewing plant patents, their work is their reward. Fedco is committed to buying seed from small breeders to give economic support to their work. Though we can find cheaper seed elsewhere, we prefer not to compromise on quality or ethics. We hope you do, too—by purchasing seed with the Ω symbol.

**2740DO Green Deer Tongue OG** (48 days) Also known as Matchless, this venerable heirloom goes back to the 1740s. **2740** and **2744** are the only deer tongues you will ever want to see in your garden! Characteristic thick green pointed leaves radiating from a compact center. Slow to bolt. Has a rich nutty flavor that doesn't turn bitter. OT-certified. ①
**A**=1g, $1.40 **B**=2g, $2.60 **C**=4g, $3.90 **D**=14g, $7.00
**E**=28g, $13.00 **K**=112g, $40.00

**2744RO Really Red Deer Tongue OG** (48 days) We revered the old Red Deer Tongue for its history and its classic leaf shape, but not for its pallid color and vulnerability to diseases. Morton combined the old-timer with his own creation, **2773** Hyper Red Rumple Waved, to develop a whole series of Really Red breeding lines. Morton has re-selected his gene pool for the deep red color, pronounced white-green contrasting veins and characteristic pointed deer-tongue leaves that attracted us initially. Now a more finished variety with much less variation, a stunning improvement over the original Red Deer Tongue. From Hyper comes heightened resistance to SC, DM, X and TB. Although not among the best summer lettuces, RRDT stands heat better than its forbears and does not bolt as readily. ☙2005. OT-certified. Ω ①
**A**=1g, $1.70 **B**=2g, $3.20 **C**=4g, $5.50 **D**=14g, $11.00
**E**=28g, $19.00 **K**=112g, $55.00

**2754PZ Prizehead** (48 days) Crinkly outer leaves tinged with red. Superior flavor. Very popular market type. Bloodnick says "grows large and heavy in spring, not so big in summer." Anne Elder reports it has produced the "heaviest heads we've ever grown in 23 years." Bolts in heat. Listed 1873 by D.M. Ferry & Co. and offered by Burpee under the name Tomhannock in 1886. ②
**A**=2g, 90¢ **B**=4g, $1.50 **C**=14g, $2.50 **D**=28g, $3.80
**E**=112g, $7.00 **K**=448g, $16.00

**2761RO Red Sails OG** (49 days) 1985 All-America winner has become almost synonymous with red leaf lettuce. A most attractive large plant with purplish red-splashed leaves, Red Sails is slow to become bitter or bolt, even in heat. 10–16" rosettes serrated with bubbled frills. Lightly crunchy lobes with a good melting texture. Handle with care, as brittle midribs break easily during washing and packing. Highest rated of 13 lettuces for vigor in OSU trial. Dependable for wholesale markets. CCOF-certified. ①
**A**=2g, $1.60 **B**=4g, $2.80 **C**=14g, $7.00 **D**=28g, $13.00
**E**=112g, $45.00

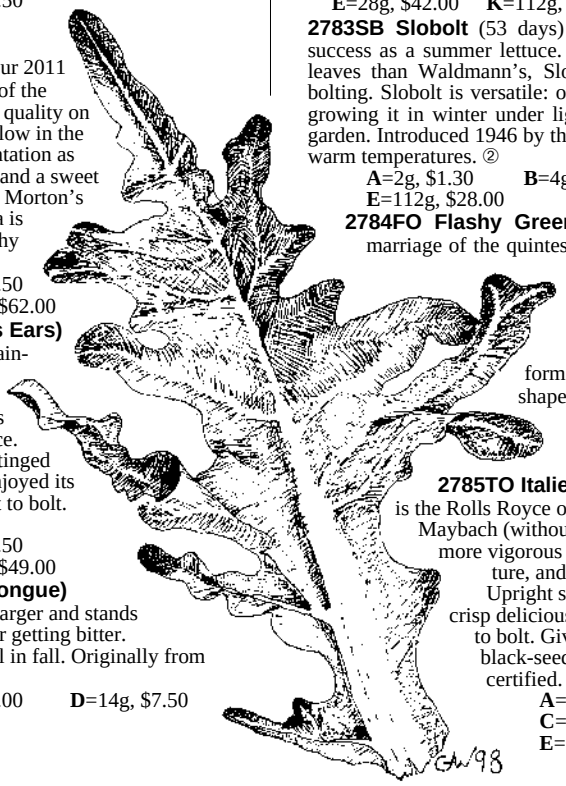
**2763CR Della Catalogna Radichetta** (49 days) A rustic Italian heirloom lettuce with deeply toothed green oak leaves of a delicate flavor like corn salad and the texture and crunch of escarole. A good variety for braising. ②
**A**=1g, $1.30 **B**=2g, $2.50 **C**=4g, $4.20 **D**=14g, $12.50
**E**=28g, $20.00 **K**=112g, $50.00

**2764BO Blushed Butter Oaks OG** (49 days) This 1997 Fedco introduction, one of a new class of lettuces developed by Morton, aroused immediate interest. Best described as a compact oakleaf butterhead, with a delightful combination of pink and green colors and a buttery taste, Blushed Butter Oaks was a hit with everyone who saw it or sampled it at our trial. Has some frost tolerance. ☙1997. OT-certified. Ω ①
**A**=1g, $1.80 **B**=2g, $3.30 **C**=4g, $5.50
**D**=14g, $12.00 **E**=28g, $20.00
**K**=112g, $64.00

**2766YO Australian Yellow OG** (50 days) In our 2011 trial the opalescent yellow-green leaves burst out of the gate with rapid growth yet were still holding their quality on July 19 when Waldmann's had bolted. Glossy yellow in the early stages, seedlings take on more green pigmentation as they mature, with the crinkly quality of a spinach and a sweet taste augmented by the barest hint of bitter. Frank Morton's strain is the best we have found. Though Australia is more famous for its squashes, this is another worthy émigré from Down Under. OT-certified. ①
**A**=1g, $1.70 **B**=2g, $3.20 **C**=4g, $5.50
**D**=14g, $11.50 **E**=28g, $19.00 **K**=112g, $62.00

**2767DO Les Oreilles du Diable OG (Devil's Ears)** (50 days) One of the lovely rare treasures once maintained by the Abundant Life Seed Foundation. A standout in our plots where we greatly preferred it to the relatively pallid Red Deer Tongue. This is deer tongue with real color and good heat tolerance. Starlike rosettes of tasty glossy leaves are deeply tinged with burgundy for a shimmery appearance. We enjoyed its nutty texture and bitter-free flavor. One of the last to bolt. OT-certified. **BACK!**
**A**=1g, $1.50 **B**=2g, $2.80 **C**=4g, $4.50
**D**=14g, $7.80 **E**=28g, $14.00 **K**=112g, $49.00

**2768CO Lingua di Canarino OG (Canary Tongue)** (50 days) Lingua is a refined oakleaf that grows larger and stands longer than the original Oakleaf without bolting or getting bitter. Mild-tasting light-green 8" rosettes. Performs well in fall. Originally from Europe. Short crop; order early. OT-certified. ①
**A**=1g, $1.40 **B**=2g, $2.60 **C**=4g, $4.00 **D**=14g, $7.50




**2769WL Waldmann's** (50 days) Large handsome heads of bright green crinkly leaves. An attractive pre-1880 heirloom Grand Rapids-type for market. Appearance and texture superior to Green Ice, but not as heat tolerant. Gets bitter toward mid-July, earlier in drought. Showed some warm-temperature germination tolerance. Resists TB. ②
**A**=2g, 90¢ **B**=4g, $1.50 **C**=14g, $2.50 **D**=28g, $4.00
**E**=112g, $6.50 **K**=448g, $16.00

**2771YO Royal Oakleaf OG** (50 days) Darker, larger and fancier than most other green oakleaf types, and recommended for market growers. Our supplier calls it the "Rolls Royce of oakleaf lettuces." Lisa Bloodnick describes it as "a large spiky oakleaf that looks like a lettuce with a bad hair day." She finds it always sweet and considers it a "must grow." Germination is intolerant of warm temperatures. CCOF-certified. ③
**A**=1g, $1.20 **B**=2g, $2.20 **C**=4g, $3.50 **D**=14g, $7.50
**E**=28g, $12.00 **K**=112g, $32.00

**2772MR Midnight Ruffles** (50 days) At long last, a red-leaf summer lettuce with sweetness, buttery crunch and no bitter aftertaste. Grown to full head size, its deep burgundy leaves, veins and ribs undulate with ruffled edges, forming an open loose mid-sized head 11" across. This frilly sweet red holds well against bolting and bitterness. ③ **NEW!**
**A**=1g, $1.10 **B**=2g, $1.80 **C**=4g, $3.00 **D**=14g, $5.00
**E**=28g, $8.00 **K**=112g, $20.00

**2773HO Hyper Red Rumple Waved OG** (50 days) If you are drawn to really deep red lettuces, consider Hyper Red. Selecting from a cross between Valeria, a very red cold-tolerant lollo rossa, and Wavy Red Cos, an undulating savoyed red romaine, Morton bred Hyper to accentuate pigmentation and ruffling. The stunning result tastes good with a pleasing texture. Holds for a while in July before succumbing to heat. Good cold tolerance. No warm-temperature germination tolerance. Resistant to X, SC, DM and TB. OT-certified. Ω ①
**A**=1g, $1.70 **B**=2g, $3.20 **C**=4g, $5.50 **D**=14g, $11.50
**E**=28g, $20.00 **K**=112g, $62.00

**2775FO New Red Fire OG** (51 days) Fire has gained a well-deserved popularity with commercial growers. Has Sails' characteristic ruffled leaves, though slightly lighter coloration, and good size. Has been among the last to bolt in our lettuce patch, lasting as late as July 29. Also quite cold-hardy. Tender sweet flavor with almost no bitterness. Resists BOR, DM, TB. OT, Stellar NOP-certified. ①
**A**=1g, $1.40 **B**=2g, $2.60 **C**=4g, $4.40 **D**=14g, $11.00
**E**=28g, $20.00 **K**=112g, $60.00

**2781XO Merlox Red Oak OG** (53 days) Frank Morton's first release of a new class of "Merlox variations" combines the ultra dark pigmentation of **2789** Merlot with the superior flavor of larger Emerald Oak. The resulting showy oak leaves are an extreme deep maroon with just a hint of green in their centers, compact in form with wavy margins, and not usually very bitter despite their color. Merlox shows promise as a winter lettuce. Left outdoors in Central Maine with no row cover, mulched only by a generous snow cover, 67% overwintered and were ready to eat in early May. Bred with strong horizontal resistance to DM and SC. OT-certified. ❄ Ω ①
**A**=1g, $2.60 **B**=2g, $5.00 **C**=4g, $9.50 **D**=14g, $22.00
**E**=28g, $42.00 **K**=112g, $145.00

**2783SB Slobolt** (53 days) Slow early growth is the key to Slobolt's success as a summer lettuce. A Grand Rapids-type with much paler green leaves than Waldmann's, Slobolt often will hold well into July without bolting. Slobolt is versatile: one grower in New York reported good results growing it in winter under lights as well as tightly spaced in his summer garden. Introduced 1946 by the USDA. Showed some ability to germinate in warm temperatures. ②
**A**=2g, $1.30 **B**=4g, $2.50 **C**=14g, $7.00 **D**=28g, $10.50
**E**=112g, $28.00

**2784FO Flashy Green Butter Oak OG** (54 days) Spectacular marriage of the quintessential oakleaf form with the speckling of the troutbacks. Not only beautiful but also amazingly tasty, crunchy with a delightful buttery texture. Emerald Oak crossed with Flashy Trout Back yields rich lime-green leaves with pronounced dark speckles. Truly lettuce as art form, with Morton mixing texture, color, flavor and shape like a master. OT-certified. Ω ①
**A**=1g, $1.70 **B**=2g, $3.20
**C**=4g, $5.50 **D**=14g, $11.50
**E**=28g, $19.00 **K**=112g, $56.00

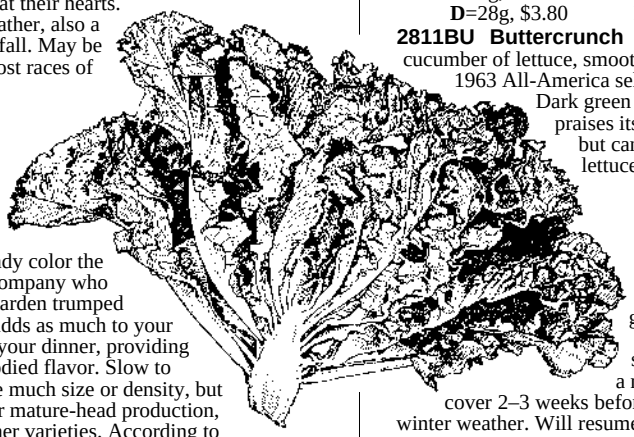
**2785TO Italienischer OG** (55 days) If **2771** Royal Oakleaf is the Rolls Royce of oakleaf lettuce, then Italienischer must be the Maybach (without the sticker shock!) Compared to Royal it was more vigorous with bigger outer leaves, a better taste and texture, and less bitterness. Good, juicy and mild-flavored. Upright sturdy 18" bright green plants provide bountiful crisp delicious leaves. They can take some heat and are slow to bolt. Give these huge beauties plenty of space. Some is black-seeded, some white-seeded, both true-to-type. OT-certified. ①
**A**=1g, $1.40 **B**=2g, $2.60
**C**=4g, $4.00 **D**=14g, $7.50
**E**=28g, $13.00 **K**=112g, $40.00

**2786WO Red Tinged Winter OG** (60 days) A leaf lettuce for three seasons introduced by Beth and Nathan Corymb of Meadowlark Hearth who selected and multiplied it from heirloom seed they brought from Europe. A hardy survivor in Roberta's overwintering test. Hildy Danforth of Shelburne, NH, said that "it was the best I've seen in my fall greenhouse and I've grown every lettuce with the word 'winter' in its name." Sow to mature in fall or late fall, or start in fall to overwinter and rally for major production in spring. The slightly ruffled leaves are green in the center and lightly tinged with bronze toward the tips. They turn quite bitter in heat, so not for summer production. WA-certified. ❄ ①
**A**=1g, $1.50 **B**=2g, $2.80 **C**=4g, $4.50 **D**=14g, $7.80
**E**=28g, $14.00 **K**=112g, $49.00

**2787BO De Morges Braun OG** (64 days) This bronze beauty is noteworthy among the hundreds of lettuces we've grown for its shimmery color and smooth buttery texture. Grows upright like a romaine as it matures, the center forming a green contrast to the pink outer leaves. De Morges grows slowly, never develops bitterness and is one of the last to bolt. We owe our awareness of this unique lettuce to Schultz. OT-certified. ①
**A**=1g, $1.40 **B**=2g, $2.60 **C**=4g, $4.00 **D**=14g, $9.00
**E**=28g, $15.00 **K**=112g, $50.00

## CUTTING LETTUCE

**2788OO Oscarde OG** (30 days baby, 45 days mature) This industry standard, a classic miniature oakleaf growing low to the ground, has inspired several imitations that aren't quite as good. Its red leaves, darkest of their type in our trials, shade to bright green at their hearts. Ideal for greenhouse culture in cold weather, also a good performer outdoors in spring and fall. May be cut for mesclun or baby leaf. Resists most races of DM. OT-certified. ❄ ①
**A**=1g, $2.60 **B**=2g, $5.00
**C**=4g, $9.50 **D**=14g, $22.00
**E**=28g, $40.00



**2789MO Merlot OG** (32 days baby, 60 mature) William Woys Weaver correctly predicted that this lettuce would become a classic. Always a standout in our trials, its intense burgundy color the richest we have ever seen. The Dutch company who bred it named it Galactic, but Cook's Garden trumped them by calling it Merlot. This merlot adds as much to your baby salad mix as a good wine adds to your dinner, providing incredible color, excitement and full-bodied flavor. Slow to grow, slow to bolt, plants never achieve much size or density, but are ideal for the baby-leaf trade. Not for mature-head production, so may be spaced more closely than other varieties. According to Mountain Dell Farms (growing at 1400' in the Catskills), can stand outside temperatures to 14˚ when double-covered under Agribon 19. Showed good resistance to BOR in recent challenging wet Julys. Germinates poorly in warm temperatures. Also resistant to X, DM, SC and TB. OT, CCOF, OT-certified. ①
**A**=1g, $1.90 **B**=2g, $3.50 **C**=4g, $5.50 **D**=14g, $13.00
**E**=28g, $22.00 **K**=112g, $80.00

**2791TO Tango OG** (45 days) For many commercial growers, Tango is the looseleaf of choice for overwintering and for productivity in cool weather. A frilly standard in salad mixes and mesclun adding loft and interesting texture. Could be called the endive of lettuces for its deeply cut pointed leaves. The pleasant flavor, however, has none of endive's bitterness. Bolts readily in hot summer, so plant accordingly if you want it to grow to full maturity. MOSA-certified. ❄ ②
**A**=1g, $1.20 **B**=2g, $2.20 **C**=4g, $3.50 **D**=14g, $7.50
**E**=28g, $12.00 **K**=112g, $35.00

**2792RO Revolution OG** (48 days) Now **BACK!** with our own organic production, true to type. As rich a red lollo rosso as anyone could want. Enjoy its intensely colored 10–12" deeply frilled thick crunchy leaves. This Revolution can hold a very long time without developing much bitterness. Before the hot summer sun brings about that inevitable reaction, guillotine it with your garden shears or cutting knife. Short crop. OT-certified. ①
**A**=1g, $1.60 **B**=2g, $3.00 **C**=4g, $5.00

**2793LO Dark Lollo Rossa OG** (53 days) A much darker version of **2796**, holding its color even under row covers, in tunnels or during prolonged cloudy periods. Our trialer describes it as "fat, curly and very red." Adds color, texture and loft to baby leaf mixes. Begin snipping after only four weeks. Develops bitterness if allowed to size up in heat. CCOF-certified. ②
**A**=1g, $1.30 **B**=2g, $2.50 **C**=4g, $4.00 **D**=14g, $5.50
**E**=28g, $9.50 **K**=112g, $30.00

**2795VO Lollo di Vino OG** (56 days) Called by its originator Morton a "distinctive little frizzlehead," di Vino stands out for its extreme dark purple color that originated in its Merlot parentage. Has the beautiful ruffles and curls of vintage lollo, but a mildness uncharacteristic of deeply pigmented lollos. Its distinctive lack of bitterness allows the harvest to extend longer into summer than any other dark lollos we have tried. That and its extreme beauty assure its place in my patch. Compact. OT-certified. ①
**A**=1g, $1.90 **B**=2g, $3.50 **C**=4g, $6.00 **D**=14g, $16.00
**E**=28g, $28.00 **K**=112g, $90.00

**2796LR Lollo Rossa** (58 days) For loft and texture, used in salad mixes as an accent or garnish, this ornamental delight was enthusiastically embraced by gourmet restaurants. Frizzy foliage is light red on top, light green at base, melding into an eye-catching display. Very cold hardy. This strain is not as colorful as **2793** and **2795**, but it was milder, less bitter, and slower to bolt than others we trialed. Introduced in 1987 by Royal Sluis. ③
**A**=1g, $1.10 **B**=2g, $1.90 **C**=4g, $3.20 **D**=14g, $7.00
**E**=28g, $11.00 **K**=112g, $32.00

## BIBB and BUTTERHEAD

**2803TT Tom Thumb** (46 days) Miniature butterhead makes an early small tightly bunched head. Outer leaves light-medium green, centers creamy white with a pleasant buttery taste. Very attractive for early markets. Can be spaced quite closely as the heads seldom exceed 5" in diameter. Introduced in England by H. Wheeler & Sons in 1858, it came to the States ten years later courtesy of Gregory. One customer writing to Burpee's in 1894 said, "It is just what the gardener wants…a good dwarf variety, a quick grower." All seed is held over; germs at 83%. ②
**A**=2g, 90¢ **B**=4g, $1.50 **C**=14g, $2.50 **D**=28g, $3.80
**E**=112g, $7.00 **K**=448g, $18.00

**2805BM Bronze Mignonette** (46 days) This small ruffled bronze-tinged butterhead captivated me in the trials. Because Mignonette is only slightly larger than Tom Thumb, it is ideal for baby vegetable enthusiasts. Peter Henderson named and marketed it to several seed houses around 1898. ②
**A**=2g, 90¢ **B**=4g, $1.50 **C**=14g, $2.50
**D**=28g, $3.80 **E**=112g, $7.00 **K**=448g, $16.00

**2811BU Buttercrunch** (50 days) Our trials evaluator calls it "the cucumber of lettuce, smooth and soothing with a green refreshing flavor." A 1963 All-America selection developed by Dr. G.L. Raleigh at Cornell. Dark green outer leaves with creamy center heart. Bloodnick praises its "sweet, succulent broad mid-ribs." Slow to bolt, but can be prone to bottom rot. Always our best-selling lettuce variety, annally exceeding 3,000 packets. Some ability to germinate in warm temperatures. ②
**A**=2g, 90¢ **B**=4g, $1.50
**C**=14g, $2.50 **D**=28g, $3.80
**E**=112g, $7.00 **K**=448g, $15.00

**2814NO North Pole OG** (51 days) We don't wait for Santa Claus—we have a seed grower out west producing this popular extremely cold-hardy butterhead for us. Protected only by snow cover, all of Donna Dyrek's plants survived a mild Maine winter outdoors. Can be set out under cover 2–3 weeks before first frost to aim for 4–6" plants at the onset of winter weather. Will resume vigorous growth as days grow longer, tolerating spring frosts. Elegant lime-green 6–8" buttery heads, sweet and tasty, won my praise on June 21 in my 1999 trial but by July 3 had turned bitter and bolted. Not for summer, but suited for the other seasons. OT-certified. ❄ ①
**A**=1g, $1.70 **B**=2g, $3.20 **C**=4g, $5.50 **D**=14g, $10.00
**E**=28g, $18.00 **K**=112g, $50.00

**2816MO Winter Marvel OG** (52 days) Polly Gottesman of Pumpkin Ridge Gardens, North Plains, OR, wrote, "Here in Zone 7 Winter Marvel is bar-none the best overwintering lettuce we grow…We start harvesting outer leaves for salad mix in December…they continue producing without bolting through March." A large fancy light green butterhead recommended for fall production and overwintering where the climate permits. Grows rapidly, but bolts readily in summer heat. If you are sowing in spring for an early summer butterhead, the harvesting window is very narrow. An old European variety. Do not sow in soil temperatures over 80˚. OT-certified. ❄ ①
**A**=2g, $1.70 **B**=4g, $3.20 **C**=14g, $5.50 **D**=28g, $10.00
**E**=112g, $18.00 **K**=448g, $45.00

**2828PO Pirat OG** (55 days) From Germany, also known as Sprenkel and Brauner Trotzkopf. Elegant green butterhead with light brown pebbling. Heads like loose large softballs at maturity. Has a delicious smooth taste with creamy texture, and holds well except in prolonged wet spells. Descended from Merveille des Quatre Saisons but much more bolt resistant. OT-certified. ①
**A**=1g, $1.70 **B**=2g, $3.20 **C**=4g, $5.50 **D**=14g, $10.00
**E**=28g, $18.00 **K**=112g, $60.00

Pest: Aster Leafhopper (vector for Aster Yellows disease)
Cultural controls: control perennial broadleaf weeds near lettuce plantings, plow lettuce fields immediately after harvest.

Pest: Slug
Cultural controls: avoid mulch or nearby grassy areas.
Material: Sluggo (**8911-6**)

Disease: Bottom Rot
Cultural controls: rotate with grass-family green manures, plant in well-drained soil or on raised beds, more upright varieties escape infection.

Diseases: Downy Mildew, Grey Mold, White Mold
Cultural controls: rotation, reduce duration of leaf wetness, plant parallel to prevailing winds, use wide spacing, control weeds, use well-drained fields in spring and fall.
Material: Actinovate (**8851**)

**2830SK Skyphos** (55 days) Although its ethereal blue-green interior coloration is almost unique in lettuce and its smooth buttery interior leaves nearly silken in texture, we are selling off our remaining seed and discontinuing this variety because we discovered it is utility-patented. Utility patents extend beyond varieties to their traits, thereby encroaching upon the commons, inhibiting future breeding and blocking scientific progress, benefiting a few patent-holders at the expense of the entire society. We therefore oppose them on principle. We are selling off our limited quantity of remaining seed and not ordering more, so *order early if you want Skyphos*. Heldover seed germs in the nineties. Tolerant to DM1-26 and LMV. ④

**A**=0.2g, $2.90

**2831SO Speckled Amish OG** (55 days) "Why put flowers on the table when there's a Speckled Amish bibb to grace the expanse? We float one in a bowl and wait for the applause," lauds Scout Proft of Someday Farm in E. Dorset, VT. Here is an ornamental bibb of spectacular beauty, its apple-green leaves splashed with maroon flecks, a stunner whether in your garden, on your table or in your salad. Small firm mild-flavored heads shaped like Merveille des Quatre Saisons, centers with soft leaves blanching creamy yellow. Mennonites brought seed in a covered wagon from Lancaster County, PA, to Ontario in 1799. Introduced into commerce in 1880 as Golden Spotted. Morton, who got the stock seed from the Seed Savers Exchange, has been selecting to alleviate TB. OT-certified. ①

**A**=1g, $1.70 **B**=2g, $3.20 **C**=4g, $5.50 **D**=14g, $10.00
**E**=28g, $18.00 **K**=112g, $49.00

**Sweet Valentine OG** (56 days) No new crop. Heldover seed failed germination. *Not available in 2015.*

**2836YO Red-Eared Butterheart OG** (56 days) Not a true butterhead, instead looks like a cross between **2744** Really Red Deer Tongue and a red Boston. Its red ears—dark pointy leaves—are shorter, broader and more buttery and folded than RRDT and the plant is less upright. Pronounced veins are green, shading toward red in the center, and contrast with its dark red leaves to give it striking good looks. Completely free of BOR, even in wet years. Allow generous space to accommodate its vigorous growth. Still showed a small amount of variation in my trial. OT-certified. Ω ①

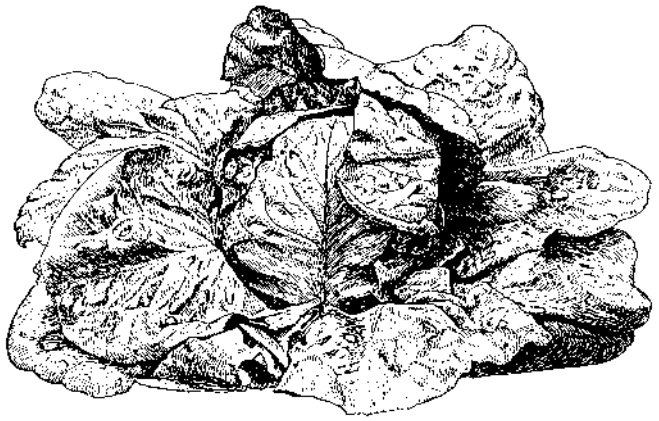
**A**=1g, $1.80 **B**=2g, $3.40 **C**=4g, $6.40 **D**=14g, $13.00
**E**=28g, $22.00 **K**=112g, $80.00

**2839KS Kagraner Sommer** (58 days) Elegant pale green heads of exceptional quality. "For years has been our main summer lettuce. A great heat resister," lauds Anne Elder. ②

**A**=2g, $1.00 **B**=4g, $1.80 **C**=14g, $5.00 **D**=28g, $8.00
**E**=112g, $20.00 **K**=448g, $50.00

**2841NO Nancy OG** (58 days) The best one-word description of this elegant butterhead rhymes with its name. Thick medium-green leaves make extra-large very tight tasty heads that usually hold well in the field. Smooth and buttery with a delectable taste and texture. A standout both for commercial growers and home gardeners, though it did struggle with severe BOR in 2013. All seed is held over at 91% germ. OT-certified. ①

**A**=1g, $1.80 **B**=2g, $3.40 **C**=4g, $5.50 **D**=14g, $10.00
**E**=28g, $18.00 **K**=112g, $48.00

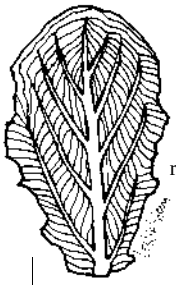


**2846KP Kinemontpas** (60 days) This pale green butterhead grows enormous and is very slow to bolt even in heat. Darker green and larger than Kagraner Sommer, with a dense buttery texture and pleasing mellow taste. Lettuce collector M. Schultz brought this classic French heirloom to our attention. Heldover seed tests at 91%. ②

**A**=1g, $1.10 **B**=2g, $2.00 **C**=4g, $3.50 **D**=14g, $7.00
**E**=28g, $11.00 **K**=112g, $35.00

**2849WD Winter Density Bibb/Romaine** (60 days) Also known as Craquerelle du Midi, a French heirloom from the 19th century. Is it a bibb or a romaine? Any way you look at it, its thick tender dark green leaves make superb eating. Starts out looking like a bibb then wrapper leaves fold tightly, forming a head like a romaine when mature. Combines the substance of romaine with the tender succulence of bibb. No warm-temperature germination tolerance. ❄ ②

**A**=2g, $1.10 **B**=4g, $2.00 **C**=14g, $3.00 **D**=28g, $5.50
**E**=112g, $10.00 **K**=448g, $30.00



## ROMAINE and COS

According to Twin Oaks grower Pam Dawling, romaine lettuces have double the vitamin A and C content of the other kinds.

**2852PO Pandero OG** (44 days baby, 63 days mature) Runaway star of my 32 varieties in the 2013 lettuce plot, this very deep purple version of a compact Winter Density–type mini-romaine develops pronounced color early and keeps it through its entire growth cycle. It is best sowed early and harvested small for salad mix or baby romaine. A late planting can be allowed to mature its striking self-contained 6" head in fall, but my spring 2014 planting bolted rapidly in heat. Cold-tolerant, it suffered only sparse BOR during the last two wet Junes. Sweet and mild. Originally from England, brought to the States by Adaptive Seeds, an Oregon outfit that evolved from the stewardship work of their Seed Ambassadors project. OT-certified. ①

**A**=1g, $2.40 **B**=2g, $4.60 **C**=4g, $8.40 **D**=14g, $19.00
**E**=28g, $35.00 **K**=112g, $120.00

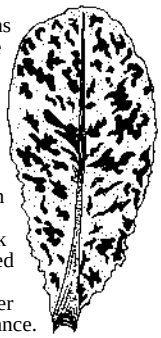
**2854BO Blushed Butter Cos OG** (49 days) A combination butterhead-romaine with ruffled savoyed leaves dappled in an attractive palette of reds and greens. Butter Cos was judged to be #1 for taste out of more than 100 lettuces in our 1996 trial. Remarkably crisp for such a buttery taste. ☙1997. OT-certified. Ω ①

**A**=1g, $1.80 **B**=2g, $3.40 **C**=4g, $5.50 **D**=14g, $12.00
**E**=28g, $22.00 **K**=112g, $64.00

**2856JO Mayan Jaguar OG** (51 days) What manner of cat is this? Not having ever seen a jaguar up close, I can only imagine how the mottled maroon spots on the dark green ruffled leaves of this lettuce might have suggested the markings on a jaguar's coat to Frank Morton. Although I've seen a lot of these trendy splotched lettuces in the last decade, this cat wins the blue ribbon for most vibrant color definition. And it has great flavor, too, sweet juicy veins, blushed pink hearts and what the breeder refers to as "that bone crusher romaine crunch!" Because it gets off to such a quick start, yet doesn't grow very large or thrive in the most intense July heat, it is a great candidate for early salad or mesclun. Fierce colors, snarly crunch, but really a pussycat at heart. OT-certified. Ω ①

**A**=1g, $2.40 **B**=2g, $4.60 **C**=4g, $8.40 **D**=14g, $19.00
**E**=28g, $35.00

**2858FO Forellenschluss OG** (56 days) Called by Bloodnick "the Jackson Pollack of lettuces." Also known as Freckles or Trout Back, an heirloom from Arche Noah, the Austrian genetic preservation project. An absolutely gorgeous romaine with the delicate taste and texture of a butterhead, distinguished for its deep green leaves flecked with wine-red splotches. Lately we've seen increasing variation in the coloration and degree of splotching. The best-tasting of the 50 lettuces in our 1998 trial. Very buttery tender leaves may be harvested at 4–6" for mesclun or allowed to grow full size for maximum ornamental benefit. William Woys Weaver traced Forellenschluss back to 1793; it was a dwarf variety of Spotted Aleppo developed in Germany. More upright and cup-shaped than **2831** Speckled Amish, with larger and darker splotches and better heat tolerance. Some warm-temperature germination tolerance. Heldover seed tests at 82%. CCOF-certified. ③



**A**=1g, $1.20 **B**=2g, $2.20 **C**=4g, $3.60 **D**=14g, $7.50
**E**=28g, $11.50 **K**=112g, $25.00

**2859KL Kalura** (30 days baby leaf, 57 days mature) One of our roles at Fedco is to bring back ye olde things of merit that unaccountably were lost (see also **885** Mega). At my first social gathering after I moved my farming to Colrain, MA, a local farmer asked me to consider Kalura, a bright light green Romaine that gained a high reputation among market growers for its imposing size and matching sweet flavor. Kalura enjoyed a brief run in Johnny's catalog (1995-2001) where it was once described as "at least tied for first place as our best tasting lettuce." When I found it again at Adaptive Seeds and gave it a whirl I was impressed first with its beautiful silky soft veins, then its vigorous growth and freedom from TB and BOR even in a wet spring. Extremely lavish soft succulent centers, very sweet-tasting juicy and crisp. Quite uniform and slow to bolt, was still looking good on July 17. Also suitable for early harvest as a closed light head. ② **NEW (to us)!**

**A**=1g, $1.80 **B**=2g, $3.50 **C**=4g, $6.00 **D**=14g, $12.00

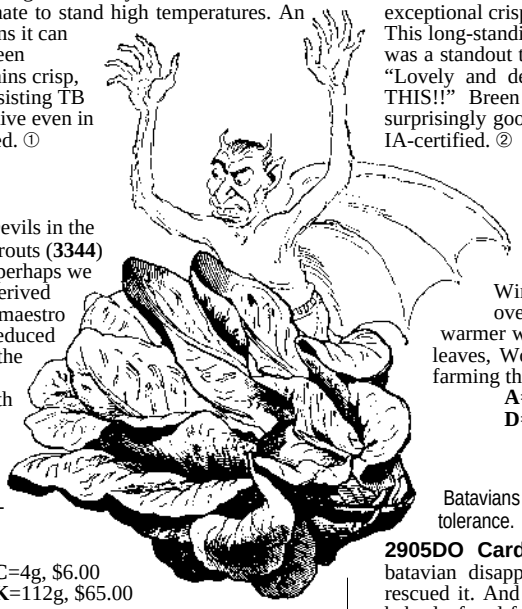
**2860MR Majestic Red** (60 days) Fancy savoyed rich bronze-red leaves make Majestic positively gorgeous. Cylindrical "head" has a somewhat spreading habit. One of the slowest-bolting romaines in our trial. Developed by Sunseeds. ②

**A**=1g, $1.20 **B**=2g, $2.20 **C**=4g, $3.60 **D**=14g, $7.50
**E**=28g, $11.50 **K**=112g, $25.00

**Supplier Codes** Know where your seed comes from! See page 5 for details.
① Small seed farmers including Fedco staff.
② Family-owned companies or cooperatives, domestic and foreign.
③ Domestic and foreign corporations not part of a larger conglomerate.
④ Multinationals not to our knowledge engaged in genetic engineering.
⑤ Multinationals who are engaged in genetic engineering.
⑥ Manufacturers of neonicotinoids: Bayer and Syngenta.

**2861JO Jericho OG** (60 days) Has become the classic summer romaine for warm regions. If the walls are tumbling down on your summer lettuce, try Jericho, bred in Israel's hot dry climate to stand high temperatures. An imposing romaine, under fertile conditions it can grow dense hefty 2' tall heads of light green sword-shaped upright leaves. Yet it remains crisp, juicy and unusually sweet, most years resisting TB or bolting well into July. Remains attractive even in bad years and tolerates BOR. OT-certified. ①

**A**=1g, $1.70 **B**=2g, $3.20
**C**=4g, $4.80 **D**=14g, $11.00
**E**=28g, $19.00 **K**=112g, $50.00



**2862DO Better Devil OG** (60 days) Devils in the pumpkin patch (**1710**), in the brussels sprouts (**3344**) and here in the lettuce (also **2767**) too—perhaps we should expect the Spanish Inquisition. Derived from his own Devil's Tongue by lettuce maestro Frank Morton, this black-seeded Devil seduced me with its pleasing smooth texture and the ethereal bronze shade of its tapered cos-like leaves. Large veins, green tinged with purple, were crunchy, juicy and sweet with just a hint of bitterness. Recommended for early spring planting, resisted BOR but with only a moderate ability to stand heat. Plants compact, uniform and dazzling. No need to exorcise this Devil. OT-certified. ① **NEW!**

**A**=1g, $1.80 **B**=2g, $3.50 **C**=4g, $6.00
**D**=14g, $12.00 **E**=28g, $22.00 **K**=112g, $65.00

**2865RH Rouge d'Hiver** (65 days) The true Rouge d'Hiver, black-seeded, with much deeper red outer-leaf coloration than Brune d'Hiver with which it is sometimes confused. Inner leaves are green with deeply bronzed tip, an attractive color combination. Forms a semi-open romaine head with excellent flavor, especially in cold weather. Develops pronounced bitterness in summer heat. *Hiver* means 'winter' and Rouge is more suitable for fall production or overwintering than for summer. French 1840s heirloom listed by Vilmorin in 1885. Resists TB. ❄ ②

**A**=2g, 90¢ **B**=4g, $1.50 **C**=14g, $2.50 **D**=28g, $4.00
**E**=112g, $7.00 **K**=448g, $22.00

**2866PO Plato II OG** (65 days) A lettuce fit for a philosopher-king, Plato sets a high standard for sweet taste in a romaine, holding its quality well into summer without bitterness, bolting or any tendency to tipburn. Morton also found it more resistant to DM and SC than any of the other green romaines in his plot. Attractive dark green slightly ruffled heavily veined leaves. The favorite lettuce of Ohio market grower Harv Roehling (profiled in our 2011 catalog). "Great flavor, handles heat better than most, great looking," he says. MT, OT-certified. ①

**A**=1g, $1.50 **B**=2g, $2.70 **C**=4g, $4.50 **D**=14g, $9.50
**E**=28g, $15.00 **K**=112g, $42.00

**2874LO Olga OG** (66 days) Elegant lime-green Olga won our hearts in our 2006 lettuce trials. Big upright 8" oval heads with big hearts, big flavor and slightly fringed leaves. So sweet, crisp and buttery that Morton thinks she must have some butterhead in her background. Stood considerable heat before developing slight tipburn and bitterness in August. OT-certified. ①

**A**=1g, $1.70 **B**=2g, $3.20 **C**=4g, $5.50 **D**=14g, $11.00
**E**=28g, $20.00

**2877MO Marshall OG** (67 days) We first discovered Marshall in the Territorial catalog. Now at last we have our own organic production. As Merlot to looseleafs so Marshall is to romaines, the standard for color intensity. One look is all it took to Marshall my support. Really deep dark red leaves with contrasting pink veins, radiating to a smidgen of green in the center. Tall upright 8" heads. Leaves smooth and succulent, crisp and chewy, lacking the bitterness usually associated with such coloration. OT-certified.

**A**=1g, $1.40 **B**=2g, $2.60
**C**=4g, $4.40 **D**=14g, $10.00
**E**=28g, $18.00 **K**=112g, $55.00

**2879PI Parris Island Cos** (68 days) The standard market romaine developed by Clemson University and the USDA in 1952. Upright 8–9" heads fold inward to form compact centers. Interior greenish-white. Resistant to TB and bolting, even in heat. Irrigation improves its texture. Cos is an island in the Dodecanese region of Greece where this type of lettuce was named. Parris Island is in South Carolina. ② **BACK!**

**A**=2g, 90¢ **B**=4g, $1.50
**C**=14g, $2.50 **D**=28g, $4.00
**E**=112g, $7.00 **K**=448g, $16.00

"I only wish your catalog were twice as long. The few days it takes to compile my order just isn't enough Fedco!"
–Micky Strachota, Colrain, MA

"Severe winter makes it more difficult to think about seeds? *Au contraire, mon cher*, snow makes us crave seed even more!"
–Truddi Greene, Chester, VT

**2883CO Crisp Mint OG** (70 days) Also known as Erthel. Named for its ruffled mint-leaf appearance, not for any minty flavor. Good size, exceptional crispness and sweet flavor with little bitterness even in mid-July. This long-standing dark green romaine with an open habit and a rounded top was a standout two consecutive years. Notes from my original trial in 1999: "Lovely and delicious, crisp and sweet. Nice size, ruffled leaves, GET THIS!!" Breen has found it "biteable, chewy, with a great texture… surprisingly good!" Slow to bolt, though some tendency to TB in July heat. IA-certified. ②

**A**=1g, $1.70 **B**=2g, $3.20 **C**=4g, $5.50
**D**=14g, $11.00 **E**=28g, $19.00 **K**=112g, $60.00

**2886WO Winter Wonderland OG** (70 days) Did you say wintah? Last year we got a good reminder of just how tough a Maine winter can be. It gets cold enough that we really appreciate a lettuce that makes it through the rigors. Winter Wonderland was one of the lettuces to survive Roberta's over-wintering test. Full disclosure: that test occurred in a warmer winter than the last one. A tall erect romaine with dark green leaves, Wonderland is slow to bolt in heat but we recommend it for farming the dark side of the calendar. White seed. OT-certified. ❄ ①

**A**=1g, $1.40 **B**=2g, $2.60 **C**=4g, $4.00
**D**=14g, $10.00 **E**=28g, $18.00 **K**=112g, $55.00

## BATAVIAN

Batavians have good hot-weather germination, and excellent heat & cold tolerance.

**2905DO Cardinale OG** (48 days) This alluring wine-red European batavian disappeared from commerce for a while before Frank Morton rescued it. And a worthy rescue it was, for Cardinale is a classic both for baby leaf and full head production. Looks a little like a butterhead-romaine cross, as the open rosettes fold together like a romaine in the center at full maturity. Shiny red leaves on the outside, green in the center, crisp and juicy with some heft. Survived temperatures in the teens in Janine Welsby's unheated greenhouse under a double layer of Agribon 19 topped with old bed sheets. OT-certified. ①

**A**=1g, $1.80 **B**=2g, $3.40 **C**=4g, $6.00 **D**=14g, $12.00
**E**=28g, $21.00 **K**=112g, $72.00

**2907SO Sierra OG** (50 days) Summer lettuce aficionados can rejoice that we again have a fresh crop of organic seed of Sierra, a red-tinged French batavian renowned for its extraordinary seedling vigor, resistance to TB and reluctance to bolt even in midsummer heat. Revered among market growers, it especially stands out in late July when others have rotted or bolted. We have harvested spring-planted marketable specimens as late as Aug. 6. Crispy and tasty leaves on a compact upright form. Developed by Vilmorin in 1992. Resists DM, tolerates LMV. CCOF, QCS-certified. ①②

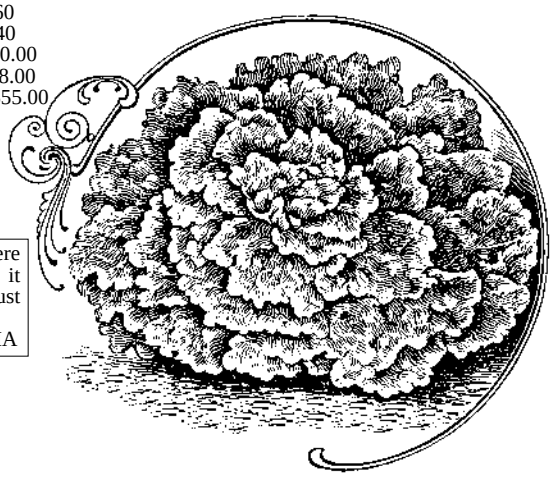
**A**=1g, $1.70 **B**=2g, $3.20 **C**=4g, $5.50 **D**=14g, $11.00

**2908TO Concept OG** (51 days) The Concept here is a combination of a batavian with a romaine. As the plant reaches full maturity, the whorling thick succulent juicy medium-green leaves start to close up at the top. Can be used for baby lettuce or allowed to mature into a vase-like bunch. As with most batavian types, it is relatively tolerant of hot weather and rarely bitter. OT-certified. ①④

**A**=1g, $1.40 **B**=2g, $2.60 **C**=4g, $4.40 **D**=14g, $10.00
**E**=28g, $18.00 **K**=112g, $55.00

**2918PB Pablo** (68 days) Pablo bears a superficial resemblance to a red iceberg with much the same attraction, but is a batavian, not a crisphead. Its larger plants form loose heads of beautiful upright rosettes surrounded by wide wavy-edged flat leaves. Bronze coloration on the outside leaves contrasts strongly with the green interiors lending a striking metallic sheen. Very sweet and mild with some bitterness in the ribs, slow-growing and extremely heat resistant. Always one of the last five to bolt in my trials—sweet to the bitter end. Lovely enough to stand as an ornamental, but also one of the best-tasting in the patch. From Seed Savers Exchange. ②

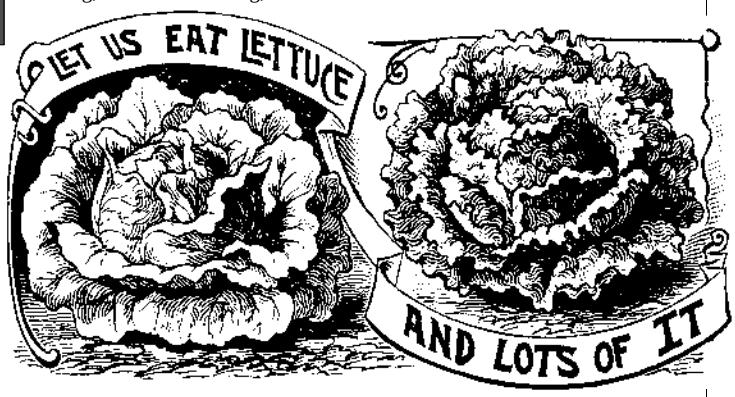
**A**=1g, $1.40
**B**=2g, $2.60
**C**=4g, $4.40
**D**=14g, $10.00
**E**=28g, $18.00
**K**=112g, $55.00



## BATAVIAN continued

**2921NO Anuenue OG** (72 days) Johnny's deserves credit for popularizing Anuenue. Its mellifluous Hawaiian name (pronounced AH-new-ee-new-ee) means 'rainbow' even though it is a uniform dark green. Anuenue sure doesn't look like much in June when most other lettuce is in full glory, but as the days get shorter and the heat gets stronger it really comes into its own. In late July and even early August, this 1987 University of Hawaii product has no peers for crispness and sweetness and never develops even the faintest hint of bitterness. Slow growth is its secret. It remains compact as it matures, surrounding its round tightly packed heart with crisp outer leaves. Unlike most lettuces, seed will germinate at 80˚. Also has some winter hardiness, surviving teen temperatures under Agribon 19 and old bed sheets in Welsby's unheated greenhouse. CCOF-certified. ①

**A**=1g, $1.40 **B**=2g, $2.60 **C**=4g, $4.40 **D**=14g, $10.00
**E**=28g, $18.00 **K**=112g, $55.00




## CRISPHEAD or ICEBERG

According to Vaugan's 1904 catalog, Iceberg gets its name from the small indentations in the leaves which are constantly filled with dewdrops giving them a crystalline appearance.

**2922RI Red Iceberg** (63 days) For burgundy exterior coloration, compact medium-sized heads, great reliability and pleasing sweet flavor, an attractive alternative to green iceberg. Interior shades to green. Heads resist getting soft and mushy in the heat for a relatively long time. ②

**A**=1g, $1.40 **B**=2g, $2.60 **C**=4g, $4.40
**D**=14g, $10.00 **E**=28g, $18.00 **K**=112g, $55.00

**2925SU Summertime** (70 days) An iceberg that keeps its head in the heat! Summertime is an Oregon State University release with uniform compact dense medium-sized heads of excellent flavor. Harvest iceberg well into July with Summertime. Resistant to TB. ②

**A**=1g, $1.20 **B**=2g, $2.20 **C**=4g, $3.50
**D**=14g, $7.50 **E**=28g, $12.00 **K**=112g, $36.00

**Webb's Wonderful** (72 days) *Not available this season.*

**2934TR Trigger** (75 days) This superb Calmar-type iceberg lettuce is right on target. It has looked good in three consecutive Colrain, MA, trials, making nice firm big heads while showing real reluctance to succumb to BOR even when left overcrowded under difficult conditions of excessive rainfall. Has shown high tolerance to cold as well as moderate ability to withstand heat. Its very crinkly toothed leaves fold into tight, tight hard 7–10" medium-green heads without give. "Vigorous and crunchy, sweet and juicy," extol my trial notes. Attractive, marketable and never bitter. Don't do as I do—instead keep your plants well-spaced to deter BOR and allow for even lovelier heads. All seed is held over at 90% germ. ❄ ④

**A**=1g, $1.40 **B**=2g, $2.60 **C**=4g, $4.40
**D**=14g, $9.00 **E**=28g, $12.50 **K**=112g, $40.00

## MIXES

Exact components will vary according to availability but are posted each year on our website **fedcoseeds.com**.

**Lettuce Mixes** Light up your salad patch with contrasting colors and leaf forms! At least a half-dozen different lettuces, all suitable for cut-and-come-again culture.

**2980LM Lettuce Mix**

**A**=1g, $1.30 **B**=2g, $2.40 **C**=4g, $3.80
**D**=14g, $7.50 **E**=28g, $12.00 **K**=112g, $36.00

**2981LO Lettuce Mix OG** A high-quality mix consisting entirely of certified-organic seed. For certified growers and folks wishing to avoid ④ and ⑤ suppliers.

**A**=1g, $1.50 **B**=2g, $2.80 **C**=4g, $4.50
**D**=14g, $9.50 **E**=28g, $16.00 **K**=112g, $55.00

**2983DO DeLuxe Lettuce Mix OG** Contains those fancy, pricey and rare varieties; the Mercedes Benz of lettuce mixes. Now all-organic!

**A**=1g, $1.80 **B**=2g, $3.50 **C**=4g, $6.00
**D**=14g, $12.50 **E**=28g, $22.00 **K**=112g, $80.00

**2984FO Freedom Lettuce Gene-Pool OG** An inspiring mix with plenty of surprises, this gene pool was created by Morton in what he called the "Hell's Half-Acre lettuce trial," identifying those varieties most disease resistant and crossing them with his best-tasting varieties to select and recombine for excellent traits. At least 10–12 "great looking and great tasting" variations that won raves from trialer Donna Dyrek. Morton invites growers and breeders to work with this mix to create new varieties for their farms or for the general public, while stipulating that nothing derived from it may be patented or protected from others' use in any way. This strategy, originated by software developers, is now known as copyleft (as opposed to traditional copyright). Morton has adopted it to keep his varieties and their derivatives in the public domain as a protected commons. Seeds as nature's software! See gnu.org/philosophy/philosophy.html for more information on copyleft. Copyleft has the potential to return to free use such shared resources as our plant heritage that rightfully belong to all of us. As Morton proclaims, "Adaptive breeding cannot occur under a system of restrictive ownership." OT-certified. Ω ①

**A**=1g, $2.30 **B**=2g, $4.20 **C**=4g, $7.50 **D**=14g, $20.00
**E**=28g, $38.00 **K**=112g, $145.00

**2985RO Red Carpet Lettuce Mix OG** Anyone who has tried Roberta Bailey's mixes knows that they are among the best in the business. She chooses from all the superior organically grown bronze and red varieties that we have in stock. Sure to please, sure to dazzle.

**A**=1g, $1.70 **B**=2g, $3.20 **C**=4g, $5.00 **D**=14g, $11.00
**E**=28g, $18.00 **K**=112g, $65.00

**2986SM Summer Lettuce Mix** A special selection of red, green and bronze lettuce varieties that most years will stand well into July without bolting. Our best-selling lettuce mix.

**A**=1g, $1.50 **B**=2g, $2.80 **C**=4g, $4.50 **D**=14g, $10.00
**E**=28g, $17.00 **K**=112g, $60.00

**2988WM Winter Lettuce Mix** For those who crave fresh salads most of the year, a popular selection of varieties with the potential to survive the winter with protection and resume vigorous growth in the spring. ❄ ②

**A**=1g, $1.50 **B**=2g, $2.80 **C**=4g, $4.50 **D**=14g, $10.00
**E**=28g, $17.00 **K**=112g, $60.00

**2992ME Mesclun** Once an exotic term from Provence meaning 'mixture,' now 'Mesclun' is familiar to us all. According to Rosalind Creasy, the original mesclun used all parts of the tongue, with a range of textures from crispy to velvety and of tastes from tangy to bitter. Our mixture consists of two packets: **2980** Lettuce Mix and **2996** Mustard Mix. Harvest these greens by cutting the leaves with scissors, leaving 1–2" of foliage as well as the apical bud and several small leaves surrounding it, so that they can grow back. Plant each packet in adjoining beds or rows so that the lettuces won't overwhelm the greens. You can enhance your mesclun by adding other greens such as mâche, claytonia and bronze fennel. Add edible flowers of garlic chives, nasturtiums, violas, signet marigolds, borage and mustard blossoms to lend further appeal to the mix, creating delectable color, taste and texture contrasts.

**A**=1g, $1.40 **B**=2g, $2.60 **C**=4g, $4.50 **D**=14g, $9.50
**E**=28g, $16.00 **K**=112g, $55.00

**2993GO Greens Mix OG** Versatile companion to **2981**. At least five varieties, certified-organic seed, chosen from among beets, chard, arugula, mustards, orachs, purslane, chervil and kales suitable for mesclun or braising. Exact components will vary according to availability. For a fully organic salad, from seed to table.

**A**=1g, $1.40 **B**=2g, $2.60 **C**=4g, $4.00
**D**=14g, $9.50 **E**=28g, $16.00 **K**=112g, $55.00

**2996MM Mustard Mix** The same mix found in our **2992** Mesclun. Includes mizuna, chervil, endives, sorrel, Red Giant mustard, arugula and tatsoi. We may substitute one or two other varieties if necessary.

**A**=1g, $1.20
**B**=2g, $2.20
**C**=4g, $3.60
**D**=14g, $7.50
**E**=28g, $13.00
**K**=112g, $40.00

"I am so glad Fedco Seeds has a progressive underpinning. The Goethe, Roosevelt and Wendell Berry quotes were wonderful and are at one with Fedco's ethics."
–Olenka Folda, Brooklin, ME

# GREENS Including Season-extenders

**All greens are open-pollinated except where noted.**

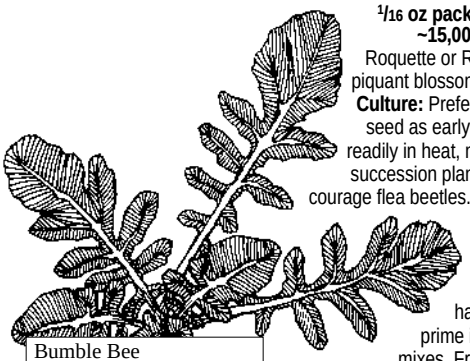
**Culture:** When to harvest greens? Research from trials conducted in England and Kenya showed looseleaf lettuce, red chard and arugula harvested in the evening had a longer shelf life than when picked in the morning. **Days to maturity are from direct seeding.**

Look for the snowflake symbol ❄ after each cultivar description for indication that a variety is hardy through at least a part of our Maine winter.

## AMARANTH *Amaranthus* spp.

Amaranth for nutritious leaves and grain see **4300**. Ornamental Amaranth see **4831–4837**.

## ARUGULA *Eruca sativa*



**1/16 oz packet sows 60 ft; 1 oz, 960 ft. ~15,000 seeds/oz.** Also known as Roquette or Rocket. Musky green and its piquant blossoms will spice up your salad.

**Culture:** Prefers cool temperatures; direct seed as early as possible in spring. Bolts readily in heat, much better as a fall crop or succession planted. Use row covers to discourage flea beetles. I always let my spring crop grow to seed and am rewarded with a self-sown September and October patch that is delicious and has no flea beetle damage! A prime ingredient in tangy mesclun mixes. Frequent watering will reduce its pungency.

Bumble Bee
Black and yellow
Little fur bee
Buzzing away
In the timothy.
Drowsy
Browsy
Lump of a bee
Rumbly
Tumbly
Bumbly bee.
Where are you taking
Your golden plunder
Humming along
Like baby thunder?
Over the clover
And over the hay
Then over the apple trees
Zoom away.

–Margaret Wise Brown

**3020SO Astro OG** (21 days baby, 35 days mature) Selected for profuse basal growth, Astro rockets into dense clusters of thick lush leaves for baby-greens harvest. Leaf shapes are a mix of smooth edged and lobed. Pleasant flavor and tender texture with mild heat. Grows equally well during cool and hot seasons, Astro comes to us highly recommended by our West Coast seed farmers for its dependable performance and yield. WA-certified. ① ❄ **NEW!**

**A**=1/16oz, $1.40 **B**=1/8oz, $2.50 **C**=1/2oz, $4.50 **D**=1oz, $6.40 **E**=4oz, $16.00 **K**=1lb, $60.00

**Ice-Bred OG** (44 days) No crop this year. *Not available in 2015.* Hoping to bring back in 2016.

**3022AR Arugula** (47 days) The best-tasting and most bolt-resistant of the 11 strains in our 2006 trials. Stood outside temperatures down to 14˚ double-covered under Agribon 19. ②

**A**=1/16oz, 80¢ **B**=1/8oz, $1.40 **C**=1/2oz, $2.20 **D**=1oz, $3.30 **E**=4oz, $5.00 **K**=1lb, $15.00 **L**=5lb, $70.00

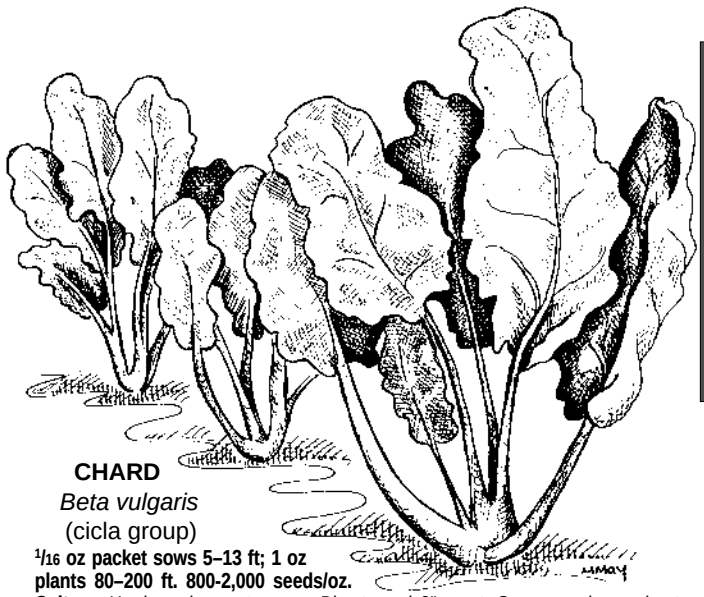
**3023AO Arugula OG** (47 days) CCOF-certified. ①

**A**=1/16oz, $1.10 **B**=1/8oz, $2.00 **C**=1/2oz, $3.00 **D**=1oz, $4.40 **E**=4oz, $8.00 **K**=1lb, $27.00 **L**=5lb, $130.00

**3027SY Sylvetta** (21 days baby, 50 days mature) *Diplotaxis erucoides* Also known as Rucola Selvatica, a must for extraordinary cold-season salads. A wild form of arugula, very deeply lobed dark green narrow leaves grow steadily, reaching 3" in 3 weeks, the perfect length for a 7" salad plate. Nutty, sweet, crisp and moderately spicy, Sylvetta grows foliage right to the rib base, no stem to trim. Please your restaurant accounts with this beautifully uniform arugula strain. Slower growing, smaller and more pungent than regular arugula. Out-competed 8 other commercial-production strains in our summer endurance trial. Highly recommended for market farmers and gardeners alike. Grower Jennine Williamson from Anchorage, AK, praises Sylvetta as the only arugula hardy enough for her garden. Eliot Coleman lists it as one of his winter staples in *The Winter Harvest Handbook* (**9876**). ~110,000 seeds/oz. ❄ ②

**A**=1/16oz, $1.60 **B**=1/8oz, $3.00 **C**=1/2oz, $7.50 **D**=1oz, $13.00 **E**=4oz, $42.00 **K**=1lb, $155.00

**Supplier Codes** Know where your seed comes from! See page 5 for details.
① Small seed farmers including Fedco staff.
② Family-owned companies or cooperatives, domestic and foreign.
③ Domestic and foreign corporations not part of a larger conglomerate.
④ Multinationals not to our knowledge engaged in genetic engineering.
⑤ Multinationals who are engaged in genetic engineering.
⑥ Manufacturers of neonicotinoids: Bayer and Syngenta.



## CHARD *Beta vulgaris* (cicla group)

**1/16 oz packet sows 5–13 ft; 1 oz plants 80–200 ft. 800-2,000 seeds/oz.**

**Culture:** Hardy and easy to grow. Direct seed 2" apart. Same species as beets. Salzer's 1915 catalog opines, "Swiss chard produces more food for the table than almost any other vegetable and it also requires less care; it yields a constant crop from July to winter." Plants will grow quite large. Space according to use—can be closer together for baby leaf harvest. Soften thick ribs of chard, beets and other greens by braising.

Minimum germination temperature 40˚, optimum range 50–85˚.

**3031FG Fordhook Giant** (50 days) Broad white stems, leaves dark green and savoyed with white veins. The standard variety, introduced by Burpee in 1934. Strains of green swiss chard have been around since 1750. ⑤

**A**=1/16oz, 90¢ **B**=1/8oz, $1.60 **C**=1/2oz, $2.50 **D**=1oz, $3.60 **E**=4oz, $6.60 **K**=1lb, $18.00

**3033AG Argentata** (55 days) Vigorous long-standing 2–3' plants tolerate a wide variety of weather conditions. Broad silvery-white midribs with a crispy sweet succulence and none of the oxalic aftertaste so common in other chards. The deep green savoyed leaves with a mild clean flavor make a great substitute for spinach in omelettes, pasta dishes and casseroles. ②

**A**=1/16oz, $1.20 **B**=1/8oz, $2.20 **C**=1/2oz, $4.20 **D**=1oz, $6.50 **E**=4oz, $21.00 **K**=1lb, $70.00

**3034PS Perpetual Spinach** or **Leaf Beet** (55 days) Thanks to Pam Dawling who suggested we add this member of the chard family. Leaf beet should be cultured like any other chard variety. It looks similar to other swiss chards, but its stems are thinner and its exceptionally tender leaves are smoother, not puckered. It tastes unlike any other chard, imparting a spinach-like flavor that lingers pleasantly. Unlike spinach, Perpetual lasts through summer into fall as it withstands light and moderate frosts. Production from June to October, reports one central-Vermont grower. ②

**A**=1/16oz, 90¢ **B**=1/8oz, $1.60 **C**=1/2oz, $2.60 **D**=1oz, $4.80 **E**=4oz, $10.00 **K**=1lb, $28.00

**3036BL Bright Lights** (56 days) Best seller from Johnny's Selected Seeds racks up annual sales in excess of 5,000 packets. Bright Lights bathes stems, midribs and secondary veins in a panoply of gold, yellow, orange, pink, intermediate pastels and dazzling stripes. The tenderness of its dark green to bronze leaves and the mildness of its chard flavor impressed the AAS judges in 1998. Young seedlings respond to cut-and-come-again culture, ideal for mesclun. Developed by John Eaton of Lower Hutt, New Zealand, who found the parent plants, red and yellow, in a small home garden in 1977 and crossed them to standard green and white varieties, selecting for color and flavor over the next fifteen years. Johnny's worked the following years to preserve the strength and range of the individual colors. "Performed insanely well" for Jason Kafka in 2013 in his high tunnels and was still looking stunning on Oct. 16. ③

**A**=1/16oz, $1.30 **B**=1/8oz, $2.40 **C**=1/2oz, $4.20 **D**=1oz, $6.50 **E**=4oz, $21.00 **K**=1lb, $75.00

**3038GO Golden OG** (56 days) The gold standard in chard and a first-rate ornamental edible. A rare color in chard, this strain from Frank Morton stood out in our 2007 grow-out. Large light green semi-savoyed leaves contrast with the bright yellow stems and veins. Becomes strikingly luminescent as the plant matures. This heirloom was developed in the 1830s when it was originally known as Chilean beet. OT-certified. ①

**A**=1/16oz, $1.50 **B**=1/8oz, $2.60 **C**=1/2oz, $5.20 **D**=1oz, $9.00 **E**=4oz, $28.00 **K**=1lb, $105.00

**Red Rhubarb** (59 days) Deep crimson stalks, dark green leaves. Very hardy. Beautiful for edible landscapes. Heirloom from Europe goes back to 1857.

**3040RR Red Rhubarb** ⑤

**A**=1/16oz, 90¢ **B**=1/8oz, $1.60 **C**=1/2oz, $2.40 **D**=1oz, $3.60 **E**=4oz, $6.50 **K**=1lb, $19.00

**3041RO Red Rhubarb OG** All seed is held over. WA-certified. ⑤

**A**=1/16oz, $1.10 **B**=1/8oz, $2.00 **C**=1/2oz, $3.20 **D**=1oz, $5.00 **E**=4oz, $12.00 **K**=1lb, $44.00

## CHERVIL *Anthriscus cerefolium*

**1/16 oz packet ~ 750 seeds; 12,000 seeds/oz.**

**Chervil** (60 days to full maturity) The Greeks referred to it as *khairephyllon*, or 'leaf of joy,' and carried sprigs to bless their friends. Superior slow-bolting strain of this annual grows vigorously. Delicate lacy leaves with distinct flavor good in soups, with fish or asparagus. Essential ingredient in mesclun. Direct seed before a rain in early spring or summer in rich well-drained soil with light but constant moisture. Begin harvesting leaves 6–8 weeks after sowing. In warmer locations performs best as a fall crop.

**3044CH Chervil** ②
**A**=1/16oz, 90¢ **B**=1/8oz, $1.60 **C**=1/2oz, $2.40 **D**=1oz, $3.60
**E**=4oz, $6.50 **K**=1lb, $21.00

**3045CO Chervil OG** OT-certified. ①
**A**=1/16oz, $1.30 **B**=1/8oz, $2.50 **C**=1/2oz, $5.50 **D**=1oz, $10.00
**E**=4oz, $35.00 **K**=1lb, $130.00

## CHICORY *Chicorium intybus*

**~500-600 seeds/g**

**3047RI Italiko Rosso** (60 days) Savory Italian chicory often mistaken for a red dandelion. Nip off the deeply toothed red-veined leaves for a delectable treat. Ideal for braising, good in spicy mesclun, it imparts its mild dandelion flavor. Moderately tangy in cool weather, it can be somewhat bitter in summer's heat. All seed is held over, tested at 83%. ②
**A**=0.5g, $1.40 **B**=1g, $2.50 **C**=2g, $4.00
**D**=8g, $6.60 **E**=16g, $10.00 **K**=32g, $14.00

**3048PZ Pan di Zucchero** (80 days) The name means 'sugar loaf' in Italian. If you associate chicory with bitterness, heirloom Pan di Zucchero will surprise you. Stood out from the four dozen others in chicory expert Lucie Arbuthnot's fields and was delicious in her kitchen. Its 1' tall large tight light green leaves are shaped like a romaine lettuce crossed with a napa cabbage. High yielding, best as a fall crop. Will store well for three months and survive for four if you wrap it tightly in slightly damp newspaper and keep it just above freezing. Lucie compares it to witloof chicory, but without the extra work. All seed is held over, tested at 93%. ②
**A**=0.5g, $1.30 **B**=1g, $2.40
**C**=2g, $4.00 **D**=8g, $6.00
**E**=16g, $10.00 **K**=32g, $16.00

### ❄ Season-Extending Greens ❄

Greens marked with ❄ at the end of their descriptions are hardy through at least a portion of our winters in Zones 4 and 5, and probably with protection can survive the entire winter in Zone 6 and south. We continue our trials to add to this selection.

**Spinach**
2510 Space
2512 Olympia
2536 Donkey
2540-1 Bloomsdale
2550 Tyee
2555 Giant Winter
2558 Winter Bloomsdale

**Lettuce**
2781 Merlox Red Oak
2786 Red-Tinged Winter
2788 Oscarde
2791 Tango
2814 North Pole
2816 Winter Marvel
2849 Winter Density
2865 Rouge d'Hiver
2886 Winter Wonderland
2934 Trigger
2988 Winter Lettuce Mix

**Mustard**
3231 Golden Frill
3233 Pink Lettucy Gene Pool
3234 Spicy Green
3235 Green Wave
3236 Red Giant

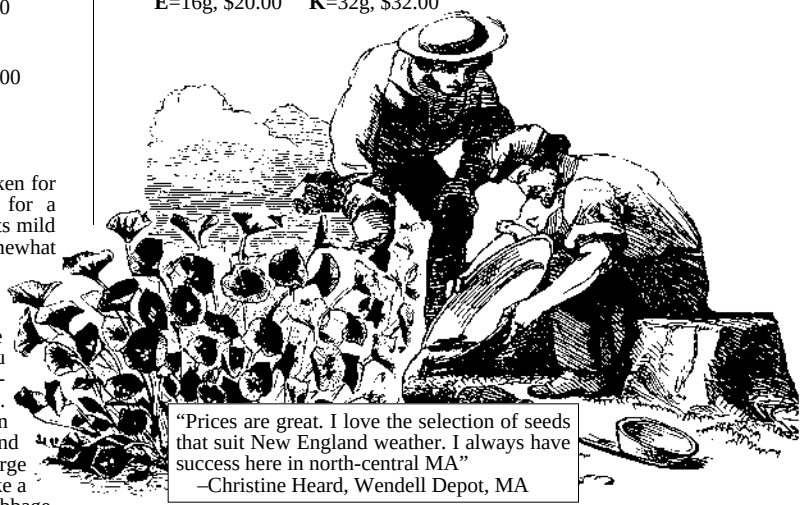
**Kale**
3450 Vates
3452 Redbor
3453 Winterbor
3460 Russian Frills
3461-2 Red Russian
3464 White Russian

**Assorted**
2392 Gilfeather Turnip greens
3020 Astro Arugula
3027 Sylvetta Arugula
3049 Claytonia
3102 Verte de Cambrai Mache
3122 Minutina
3158 Gigante d'Italia Parsley
3166 Double Curled Parsley
3168-9 Krausa Parsley
3170 Dark Green Italian Parsley
3204 Green Lance
3218 Senposai
3220-1 Tatsoi
3391 Deadon Savoy Cabbage
3397 Wirosa Savoy Cabbage
3441 Vates Collards
3471 Kolibri Kohlrabi

## CLAYTONIA *Montia perfoliata*

**1/2 g packet sows 3 ft. ~160 seeds/gram.** Direct seed in spring, 24 per ft. Thin to 3" apart. Responds to cut-and-come-again culture and tolerates moderate frosts. For best quality, make at least one succession planting.

**3049CL Claytonia** (40 days) Also known as Winter Purslane and Miner's Lettuce, it was the '49ers green of choice, rich in calcium and vitamin C. Claytonia's small heart-shaped leaves have a mild but succulent taste that we find attractive. We add it regularly to our mesclun. Barbara Damrosch (see **9682** in the books section) says it "re-grows like crazy so you can get cut after cut off the same plant." ❄ ③
**A**=0.5g, $1.60 **B**=1g, $2.80 **C**=2g, $5.20 **D**=8g, $12.00
**E**=16g, $20.00 **K**=32g, $32.00



"Prices are great. I love the selection of seeds that suit New England weather. I always have success here in north-central MA"
–Christine Heard, Wendell Depot, MA

## CRESS *Lepidium sativum*

**1/16 oz packet sows 50–70 ft; 1 oz, 800–1,000 ft.**

**3053CC Curly Cress** (20 days) Bright green tightly ruffled leaves can be cut as soon as they are a couple of inches tall. Peppery flavor enlivens salads. Offered by C.P. Hirschy for a nickel a packet in 1890. ②
**A**=1/16oz, 90¢ **B**=1/8oz, $1.60 **C**=1/2oz, $2.40 **D**=1oz, $3.60
**E**=4oz, $5.50 **K**=1lb, $14.00

**3056WO Wrinkled Crinkled Crumpled Cress OG** (30 days)
Salad green that will impress.
Mix some lettuce, add some dress.
Stir it up, sit down and fress.
Banish cares and summer stress.

With a designer's eye, a discerning palate, and a breeder's deft touch, Frank Morton crossed Persian and curled cresses to create a gene pool, from which he selected Wrinkled Crinkled. Broad leaves are extremely ruffled and wrinkled along the margins and savoyed in the middle. A fluffy spicy addition to your salad mix, imparting a tang, plus an irresistible sweetness. Can be bunched for market. OT-certified. Ω ①
**A**=1/16oz, $1.40 **B**=1/8oz, $2.60 **C**=1/2oz, $5.00 **D**=1oz, $8.50
**E**=4oz, $20.00 **K**=1lb, $75.00

**3058WC Watercress** (60 days) *Nasturtium officinale* Perennial, Zone 4, native to Europe. Start seeds indoors and transplant to cold frame, keeping watered, or direct sow in soggy stream bank. Also good in pots. Likes sunshine. Keep picked; it gets bitter once flowers form. Use in salads and soups; rich in vitamins and minerals. According to University of Connecticut researchers, contains a compound that inhibits numerous types of cancers. ②
**A**=1/16oz, $1.50 **B**=1/8oz, $2.80 **C**=1/2oz, $9.50 **D**=1oz, $16.00
**E**=4oz, $50.00

## ENDIVE *Cichorium endivia*

**1/16 oz packet sows 40 ft; 1 oz, 650 ft. 750 seeds/g.**

**3063FO Très Fine Maraîchère Olesh OG** (42 days) Anne Elder reports that TFM has changed her CSA members' minds about whether they like endive. "Wow, an endive that is sweet. Almost unheard of." Large frizzy endive with very fine ribs suitable for late spring and early summer harvests. Holds well in the field. Known to chefs as frisée. 19th-century French heirloom. AGRIOR-certified. ③
**A**=1/16oz, $2.10 **B**=1/8oz, $3.80 **C**=1/2oz, $14.00 **D**=1oz, $26.00

**Chickendive OG** (70-90 days) *Chicorium intybus* x *C. endivia* Out of production. *No longer available.*

**3092BL Broad-Leaved Batavian** (85 days) Also known as Escarole. Smooth broad dark green outer leaves with creamy yellow closely bunched center leaves that Fearing Burr described as thick and fleshy in his 1863 *Field and Garden Vegetables*. Lauded by William Woys Weaver as a good salad green, not bitter. Especially good as a fall crop; tolerates frost under row cover. Best cooked—the Italian tradition is to braise with white beans. Also makes a savory escarole and leek pie. All seed is held over at 89% germ. ②
**A**=1/16oz, 90¢ **B**=1/8oz, $1.60 **C**=1/2oz, $2.50 **D**=1oz, $3.80
**E**=4oz, $7.00 **K**=1lb, $20.00

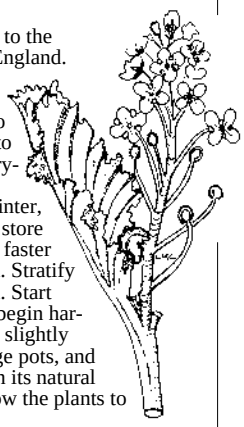
## GOOSEFOOT *Chenopodium bonus-henricus*

**160 seeds/g.**

**3096KH Good King Henry** Perennial, Zone 3-9, also known as Lincolnshire Spinach. Used as a potherb, one of the first greens of spring and one of the last of fall. Ancient plant used in festive meals, in meat dishes and as a side dish, very popular in Europe before it was supplanted by spinach. Not named for any specific king, instead Henry comes from the germanic *haganrich* (literally 'king of the hedge,' supposedly a name for a gremlin with goose's feet that helps around the house and puts things where they belong.) Cultured, harvested and prepared much like asparagus and considered a great delicacy. Gather shoots while they are still tender at about 5" high, peel and boil, or harvest the dark green arrow-shaped leaves like spinach. Prefers rich soil in semi-shady areas, though will grow in full sun. Stratify seeds: fluctuation of high and low temperatures aids germination. Direct sow in spring or fall or transplant very young seedlings in spring. Once established the plants don't like transplanting. Like asparagus, requires a year of growth before plants can be harvested. If left uncut, stalks grow to 2½'. ②

**A**=0.5g, $1.50 **B**=1g, $2.60 **C**=2g, $4.00 **D**=8g, $12.50
**E**=16g, $22.00

## SEA KALE *Crambe maritima*



**3099SK Sea Kale** Perennial, probably Zone 5. Native to the seashores of northern Europe and popular in Victorian England. Once grown on a large scale as a winter substitute for asparagus, cultivated for its blanched tender delicate ivory-colored leaf stalks that can be boiled or steamed to provide a good source of vitamin C. Sea kale grows up to 3' forming a beautiful rosette of wavy-edged thick silvery-grey leaves and dense racemes of small white sweet-scented flowers in midsummer. Plants die back in the winter, the ideal time to take cuttings of the fleshy side-roots to store in moist sand until setting out in soil in March. This is a faster way to generate plants than starting each year from seed. Stratify seeds or nick the big seed casings for better germination. Start indoors like broccoli, set out, protect to overwinter and begin harvesting the 2nd and subsequent years. Blanch the tender slightly bitter early spring shoots in absolute darkness under large pots, and harvest when the stems reach 3–10". Exposed to light in its natural state sea kale is bitter and inedible. After blanching, allow the plants to rebuild their strength for the following season. ③

**A**=1g, $2.30 **B**=2g, $4.20 **C**=4g, $8.00 **D**=8g, $15.00
**E**=16g, $28.00

## MÂCHE *Valerianella locusta*

**17,000 seeds/oz.** From Susan Lipari of Alpine, NY: "I grew up in Germany, and mâche was a staple winter salad green…Even here, in upstate NY, Zone 5, it is quite untouched by the cold of winter. I harvest mâche all through the winter, sometimes scraping the snow off the rosettes and blowing on my freezing hands...In the spring, mâche begins to bolt…In late September…the seeds germinate and begin to grow. By the middle or end of October I can start to harvest the new crop…No Thanksgiving…dinner would be complete in my family without 'Rapunzel' salad." Also known as Corn Salad, Lamb's Lettuce, Field Salad and Fetticus, mâche has a unique nutty flavor.

**Culture:** Mâche seed requires 10–14 days to germinate. Never start in soil temperatures above 68˚ as excessive warmth triggers seed dormancy.

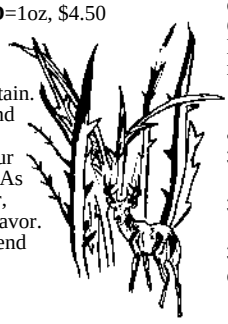
**3102VC Verte de Cambrai** (45 days) A small-seeded small-leaved strain that performs especially well in cool or cold conditions and is the best kind for overwintering. Susan Coombs of Newton, MA, reported it happily growing in her garden in February. May be the same variety Thomas Jefferson grew in 1810 under the name Candia. ❄ ②

**A**=1/16oz, $1.10 **B**=1/8oz, $2.00 **C**=1/2oz, $3.40 **D**=1oz, $5.50
**E**=4oz, $14.00 **K**=1lb, $40.00

**3114LL Large-Leaf Round** (60 days) Vigorous large-leaf type is suitable for sowing in spring for an early summer harvest. Weaver traces this strain back to the 1840s, but for centuries prior to that corn salad was gathered in the wild. ②

**A**=1/16oz, $1.00 **B**=1/8oz, $1.80 **C**=1/2oz, $3.00 **D**=1oz, $4.50
**E**=4oz, $9.00 **K**=1lb, $28.00

## MINUTINA *Plantago coronopus*



**3122MN Minutina** (50 days) Also called Buckshorn Plantain. "Good in a buttered frying pan with fresh snipped chives and a fresh duck egg cracked on top," informs Jan Sonstrom. Morse Pitts of Windfall Farm brought this spiky green to our attention. As it comes up it looks like little blades of grass. As it matures, it resembles mizuna leaves, only much narrower, less leafy and more succulent. Crunchy with a mild nutty flavor. Slow grower, will regenerate from cutting, but we recommend succession planting. Extremely cold hardy. ❄ ③

**A**=1/16oz, $1.40 **B**=1/8oz, $2.60 **C**=1/2oz, $7.50
**D**=1oz, $14.00 **E**=4oz, $40.00

## ORACH *Atriplex hortensis*

**4,000 seeds/oz.** Key salad ingredient once called the Cabbage of Love, also known as Mountain Spinach, popular in the 19th century then forgotten for many years.

**Culture:** Thrives in cool weather and should be direct-sown as soon as the ground can be worked. Can be pinched back to encourage production and retard bolting. Produces an abundance of seed that can be saved, and will occasionally self-sow.

**3148RO Purple Orach OG** (38 days) Beautiful red-purple spinach-shaped leaves have a mild flavor. Seed has bracts. Biodynamically grown but not BD certified. OT-certified. ①

**A**=1/16oz, $1.50 **B**=1/8oz, $2.70 **C**=1/2oz, $7.50 **D**=1oz, $13.00
**E**=4oz, $36.00

**3150AO Aurora Orach Mix OG** (38 days) In his Wild Garden Seed catalog, originator Frank Morton calls it "mountain spinach for merry pranksters." This mix of golden, dark purple, purple and carmine day-glo will give orach a whole new aura in your garden and salad mixes. As Morton says, "Exotic forms and high-contrast high-intensity color sells seed, and good taste and easy culture sells that seed year after year." Seed has bracts. MT-certified. ①

**A**=1/16oz, $1.50 **B**=1/8oz, $2.70 **C**=1/2oz, $7.50 **D**=1oz, $13.00
**E**=4oz, $36.00

## PARSLEY *Petroselinum crispum*

**1/16 oz packet sows 25 ft; 1 oz, 400 ft. avg. 14,000 seed/oz** A shining star of Jason Kafka's wholesale program. He grows Double Curled, Dark Green Italian and Krausa, moves a few hundred bunches per week and says that if you have the market, these may bring more $ per row foot than any other crop. When they bolt, he gets a bonus by using the umbels as filler for flower bouquets.

**Culture:** Very hardy. Parsley seed is short-lived; test old seed before sowing. Very slow to germinate (up to 30 days). Soaking seed 8–12 hours will hasten germination. Do not allow soil surface to dry out.

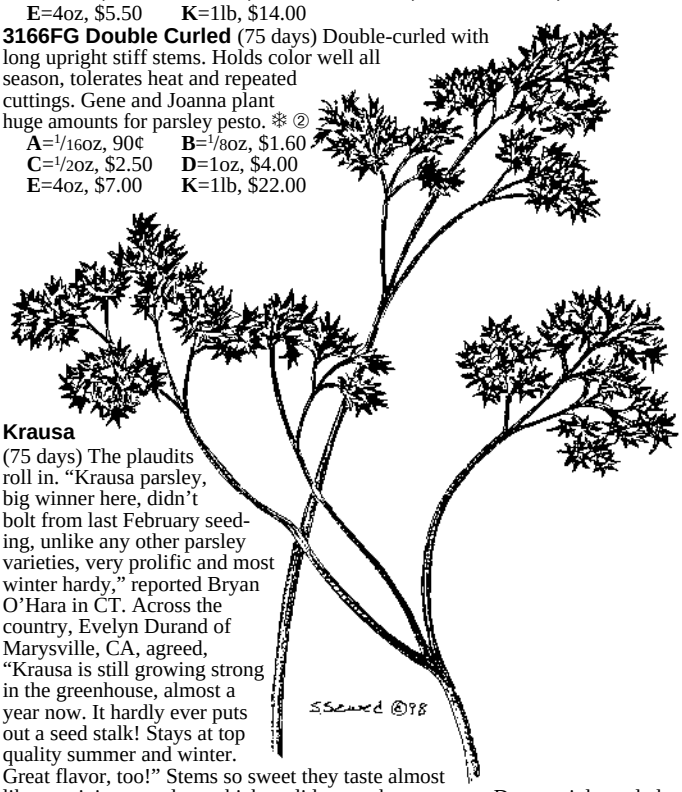
Minimum germination temperature 40˚, optimal range 50-80˚, optimal temperature 70˚. Emergence takes 29 days at 50˚, 17 days at 59˚, 13 days at 77˚.

**3158GI Gigante d'Italia** (70 days) We were wowed by its early seedling vigor and rich sweet flavor. Flat-leaved heirloom hails from northern Italy and grows to 1'. ❄ ③

**A**=1/16oz, 90¢ **B**=1/8oz, $1.60 **C**=1/2oz, $2.50 **D**=1oz, $4.00
**E**=4oz, $5.50 **K**=1lb, $14.00

**3166FG Double Curled** (75 days) Double-curled with long upright stiff stems. Holds color well all season, tolerates heat and repeated cuttings. Gene and Joanna plant huge amounts for parsley pesto. ❄ ②

**A**=1/16oz, 90¢ **B**=1/8oz, $1.60
**C**=1/2oz, $2.50 **D**=1oz, $4.00
**E**=4oz, $7.00 **K**=1lb, $22.00



**Krausa** (75 days) The plaudits roll in. "Krausa parsley, big winner here, didn't bolt from last February seeding, unlike any other parsley varieties, very prolific and most winter hardy," reported Bryan O'Hara in CT. Across the country, Evelyn Durand of Marysville, CA, agreed, "Krausa is still growing strong in the greenhouse, almost a year now. It hardly ever puts out a seed stalk! Stays at top quality summer and winter. Great flavor, too!" Stems so sweet they taste almost like a miniature celery: thick, solid, crunchy, yummy. Dense triple-curled medium-green parsley holds its color without developing white or brown spots. Taller, thicker stems than Double Curled. "Never before had a parsley with such delicious stems," raves trialer Donna Dyrek. Can stand the heat and were still beautiful and juicy in October. ❄ ④

**3168KR Krausa** ④

**A**=1/16oz, $1.40 **B**=1/8oz, $2.50

**3169KO Krausa OG** OT-certified. ④

**A**=1/16oz, $2.80 **B**=1/8oz, $5.00 **C**=1/2oz, $18.00 **D**=1oz, $30.00

**3170DO Dark Green Italian OG** (78 days) Smooth and shiny large wide dark green flat leaves. Upright with vigorous growth. WA-certified. ❄ ⑤

**A**=1/16oz, $1.40 **B**=1/8oz, $2.50 **C**=1/2oz, $4.00 **D**=1oz, $7.50
**E**=4oz, $19.00 **K**=1lb, $68.00

## PURSLANE *Portulaca oleracea* var. *sativa*

Its Latin name means 'milk-bearing vegetable.' Purslane leaves have more vitamin C than spinach leaves and are rich in omega-3 fatty acids and antioxidants.

**Culture:** Direct seed in spring, after danger of frost is past. Thin to 5" apart. Can be cut; will regenerate. We recommend a succession planting to maximize tenderness.

**3182GO Golden OG** (50 days) Its wild relative, the common garden weed, was a favorite edible of both Thoreau and Gandhi. This domesticated strain is more erect than the wilding, and not crawly. Golden has a succulent texture with a mildly acerbic flavor that makes it an ideal addition to mesclun. Golden-green leaves patterned like a cross. OT-certified. ①

**A**=0.5g, $1.50 **B**=1g, $2.80
**C**=2g, $5.00 **D**=8g, $9.50
**E**=16g, $16.00 **K**=32g, $30.00

## RADICCHIO *Cichorium intybus*

**700 seeds/g.**

**Culture:** These radicchios are easy to raise from transplants although they have not yet been refined to absolute uniformity. Occasional plants still bolt unpredictably. If you try direct-seeding, watch out for voracious flea beetles. Culture like lettuce; do not allow to dry out. They are mature when heads form in the center. Do not eat the bitter outer leaves. The edible centers are an acquired taste, retaining some bitterness, wonderful in salad or braised. The folks at Adaptive Seeds suggest that steeping the leaves in ice water dissolves some of the bitterness. Fall crops make the largest heads. Very tolerant of fall frosts down to the 20s. Even if you don't like to eat radicchio, consider growing its red heads as ornamentals. Left in the ground over winter, it bolts in spring and blooms with cornflower-blue chicory flowers every morning throughout the summer.

Seed not pelleted.

**3187FR Fiero** (66 days) F-1 hybrid. A beautiful elongated upright radicchio. Deeply ribbed leaves with a branching pattern off the central vein reminiscent of a tree. The whitish vein blushes green along the margins and branches, creating a spectacular color contrast with the purplish background. Early and delicious, a reliable header. Heldover seed tests at 95%. ④

**A**=0.05g, $1.80 **B**=0.1g, $3.50 **C**=0.2g, $6.60 **D**=0.4g, $12.00
**E**=1.6g, $32.00 **K**=3.2g, $60.00

**3188ND Indigo** (69 days) F-1 hybrid. We've never seen a radicchio produce such consistently large tight heads of extraordinary rich interior color. Nikos rated it one of the sweetest red radicchios she's ever tasted. Tipburn resistant. ④

**A**=0.05g, $1.80 **B**=0.1g, $3.50 **C**=0.2g, $6.60 **D**=0.4g, $12.00
**E**=1.6g, $30.00 **K**=3.2g, $56.00

**3189RT Radicchio di Treviso** (80 days) Shaped almost like a small romaine lettuce, turns from green to variegated dark burgundy with lovely white veining as the nights grow cold. As its narrow leaves bunch like a romaine, you can bind them with a ribbon to make a firmer "head." Best for fall crops. ②

**A**=0.5g, $1.40 **B**=1g, $2.40 **C**=2g, $4.40 **D**=8g, $7.50
**E**=16g, $12.00 **K**=32g, $20.00

**3190PR Palla di Fuoco Rossa** (85 days) Round-headed Chioggia-type from Italy. Palla di Fuoco impressed us with its deep burgundy heads with good uniformity. Its name means 'ball of red fire.' ②

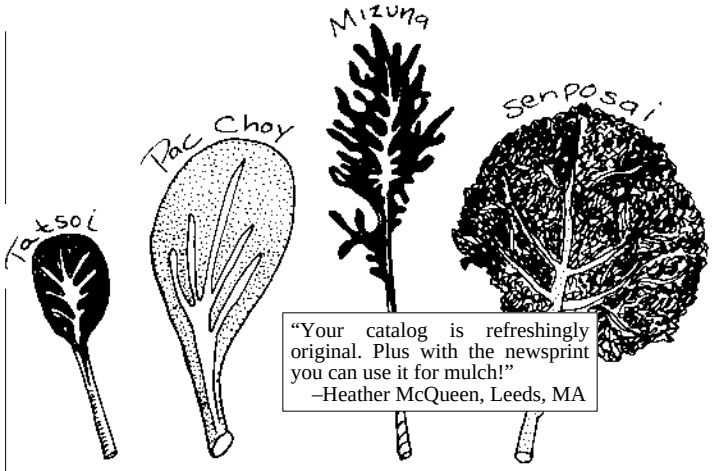
**A**=0.5g, $1.40 **B**=1g, $2.40 **C**=2g, $4.40 **D**=8g, $7.50
**E**=16g, $12.00 **K**=32g, $20.00

## SORREL *Rumex acetosa*

**30,000 seeds/oz.** Sorrel derives from the French word *surele*, roughly translated 'to sour.' Sorrel juice has been employed to bleach linens and polish silver.

**3192BL Broad-Leaved Sorrel** (60 days) Perennial, Zone 3. Often known as Sour Grass. Likes cool weather, acid soil, partial shade and plenty of water to retard bolting. In spring it rapidly shoots up its thick sword-shaped lemony-flavored leaves. If left untouched will grow up to 18" and make seed stalks. Snip the leaves while they are still young and tender. Keep cutting and never let them grow big and coarse or go to seed. If they get away, mow the plant close to the ground and it will regenerate. Or treat as a biennial by planting a new patch every year and rotating the old out of production. Young leaves add tang to soups and salads and provide a welcome spring tonic. Tony Ricci of Green Heron Farm in PA recommends grilling fish wrapped in sorrel leaves surrounded by foil to impart an herbal-lemon flavor to the fish. ②

**A**=1/16oz, $1.20 **B**=1/8oz, $2.20
**C**=1/2oz, $3.60 **D**=1oz, $6.00
**E**=4oz, $14.00 **K**=1lb, $55.00




"Your catalog is refreshingly original. Plus with the newsprint you can use it for mulch!"
–Heather McQueen, Leeds, MA

## ASIAN GREENS *Brassica* spp.

**All Asian greens are open-pollinated except where noted.**

**Diseases:**
ALTS Alternaria Leaf Spot
BSR Bacterial Soft Rot
DM Downy Mildew

*Note: Because of Black Leg quarantine issued by Oregon, we cannot ship Asian brassica green packets larger than 1/2 oz into the Willamette Valley.*

### ASSORTED

**3203GS Garland Serrated Chrysanthemum** *C. coronarium* (40 days) Grown for its aromatic greens with an unusual taste appreciated by devotees. This strain was superior to other Shungiku varieties in our trial. Its 5" flowers (buttercup yellow, edged in white with serrated tips) were larger and better for the edible flower market and its small grey-green serrated leaves had distinctly more chrysanthemum taste. It also makes a great yellow dye plant. The Japanese use it in hearty one-pot winter stews known as *oden*. Also good in salads, soups and stir-fries. Plant thickly in early spring (or summer for a fall crop) and harvest green leaves when stems are 4–8" tall, before buds appear. 15,000 seeds/oz. ⑤

**A**=1/16oz, $1.20 **B**=1/8oz, $2.20 **C**=1/2oz, $3.60 **D**=1oz, $6.00
**E**=4oz, $16.00 **K**=1lb, $60.00

**3204GL Green Lance** (45-60 days) *B. oleracea* F-1 hybrid. While Lance's name seems more out of Final Fantasy or other such games, it has a number of aliases that more properly tie it to the Asian vegetable kingdom: Chinese Broccoli, Chinese Kale, Kailaan or Gai Lan. Grown for its succulent stalks and leaves, it sends up tender 8" shoots topped with elegant little loose florettes. Once the main stalk is cut, it coppices into many secondary shoots. Has versatility and flavor similar to broccoli, excellent steamed or in stir-fries. Heat and cold tolerant, thrives in a wide range of climates and can be planted in late spring, late summer or early fall. All seed is held over, two lots, each testing better than 80%. 160 seeds/g. ❄ ⑤

**A**=2g, $1.80 **B**=4g, $3.40 **C**=14g, $9.50 **D**=28g, $16.00
**E**=112g, $52.00 **K**=448g, $190.00

**3205HT Hon Tsai Tai** (37 days) *B. rapa* Chinese specialty vegetable also known as Purple-flowered *Choy Sum*, meaning 'vegetable heart' or 'flowering stem' in Cantonese. The flower stalks, leaf stalks and buds are deep purple, with color intensifying in cold weather. Grows vigorously in fertile soil, producing up to forty pencil-thick flowering shoots, though much skimpier on poor ground. Shoots and leaves have a pleasant mild mustardy flavor good for stir-fries, braising and soups. Grows best in cool weather, ideal when sown in late summer for a fall crop or in fall for an early winter crop in warmer climates. Hardy to 23˚. May bolt prematurely in midsummer heat. 4,500 seeds/oz. ③

**A**=1/16oz, $1.20 **B**=1/8oz, $2.20 **C**=1/2oz, $3.60 **D**=1oz, $5.50
**E**=4oz, $14.00 **K**=1lb, $45.00

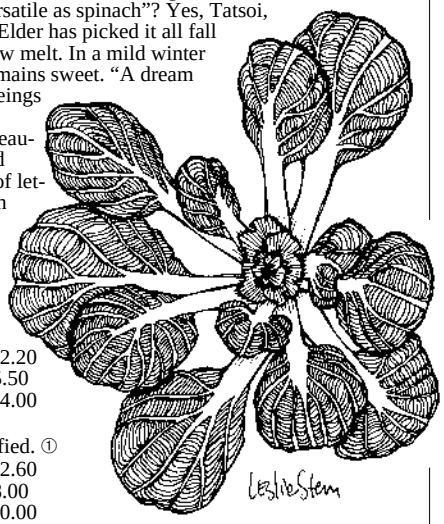
**3209MS Maruba Santoh** (35 days) *B. r.* (pekinensis group) With Maruba you get four vegetables in one. The loose round vibrant chartreuse leaves provide a mild piquant mustardy flavor while the flat white stems impart a juicy crisp pac choy taste. High-end chefs like to use the blossoms. Market grower Scott Howell finds the flavor more subtle and complex than that of other greens and cuts Maruba small for his mesclun. Fairly bolt tolerant, so plant after the early spring flea beetle invasion subsides. 8,500 seeds/oz. ⑤

**A**=1/16oz, $1.10 **B**=1/8oz, $2.00 **C**=1/2oz, $3.30
**D**=1oz, $5.00 **E**=4oz, $14.00 **K**=1lb, $44.00

**3218SP Senposai** (40 days) F-1 hybrid. Developed in Japan, a cross between Japanese Mustard Spinach (Komatsuna *B. rapa*) and regular cabbage. Round medium-green leaves are wonderful in *okonamiyaki* or for braising. A spring sowing will stand the entire summer (even through drought) and well into fall before bolting. Can be overwintered in warmer climes or used for spring greenhouse salad production because it grows so rapidly. Open plant habit requires 12–18" spacing. 20,600 seeds/oz. ❄ ⑤

**A**=1/16oz, $1.30 **B**=1/8oz, $2.50 **C**=1/2oz, $4.50 **D**=1oz, $8.40
**E**=4oz, $22.00 **K**=1lb, $78.00

**Tatsoi** (45 days) *B. r.* (narinosa group) What grows quickly, can be seeded as late as August, withstands frost and is, according to *Orlando Sentinel* columnist Sherry Boas "just as versatile as spinach"? Yes, Tatsoi, also known as Tah Tsai. Anne Elder has picked it all fall into December even after a snow melt. In a mild winter still is not burnt by cold and remains sweet. "A dream come true for snow-dwelling beings craving greens." Spoon-shaped thick dark green leaves make beautiful compact rosettes with mild brassica flavor. Good in place of lettuce in sandwiches, stir-fried, in quiches and lasagnas and in soups. Will come back when cut. An essential ingredient in our salads and mesclun. ~13,600 seeds/oz. ❄




**3220TS Tatsoi** ⑤
**A**=1/16oz, $1.20 **B**=1/8oz, $2.20
**C**=1/2oz, $3.80 **D**=1oz, $5.50
**E**=4oz, $13.00 **K**=1lb, $44.00
**L**=5lb, $190.00

**3221TO Tatsoi OG** OT-certified. ①
**A**=1/16oz, $1.40 **B**=1/8oz, $2.60
**C**=1/2oz, $4.50 **D**=1oz, $8.00
**E**=4oz, $24.00 **K**=1lb, $90.00

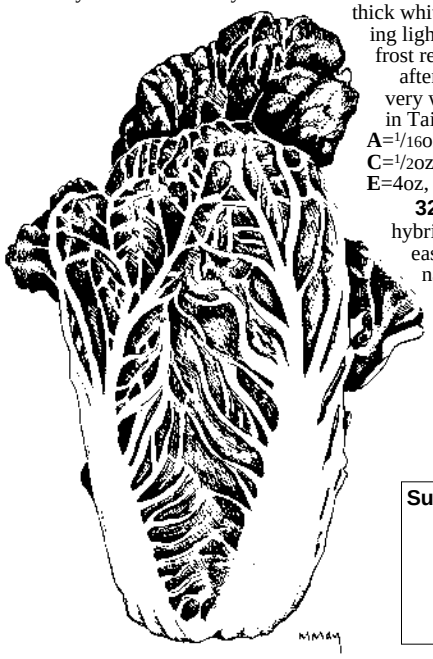
**3222TB Tokyo Bekana** (20 days baby, 45 days full size) *B. r.* (chinensis group) These baby Chinese cabbages may be bunched for market or their ruffled curled leaves cut to add loft and weight to salad mixes. With pale green color and lettucy leaves they look almost like lettuce. Bekana will regrow for multiple cuttings and branch out, giving lots of edible leaves with very little coarse stalk. Lacy and mild, sweet a bit like lettuce but never bitter and makes a good slaw. Adam Tomash seeded his on July 6 for a late Aug–Sept harvest. It could be sowed later and, with protection, produce into late fall. But Bryan O'Hara says not as winter hardy as mizuna or tatsoi. Thin to 4–6" for full "heads." ⑤
**A**=1/16oz, $1.10 **B**=1/8oz, $2.00 **C**=1/2oz, $5.00 **D**=1oz, $8.00
**E**=4oz, $18.00 **K**=1lb, $45.00

**3223YN Yokatta-Na** (21 days baby; 45 days mature) *B. r.* (narinosa group) F-1 hybrid. "What a surprise! The heads grow well larger than a foot tall and we ate the 2nd growth heads whole like young bok choy," reported the Wolperts in Belington, WV. Quick-growing and versatile, tolerating both heat and cold, Yokatta can extend your season at either end, while simultaneously broadening your culinary range. Use it either raw in salad mixes or cooked in stir-fries. The deep green tender leaves, though flavorful, lack the mustard "bite" found in so many Asian greens and can be harvested as a cut-and-come-again crop or at maturity. ④
**A**=1/16oz, $1.40 **B**=1/8oz, $2.60 **C**=1/2oz, $4.50 **D**=1oz, $8.00
**E**=4oz, $26.00

## CHINESE CABBAGE *B. rapa* (pekinensis group)

**1/16 oz packet sows 25 ft. ~9,500 seeds per oz.** See also **3222** Tokyo Bekana for a lettucy-type baby Chinese cabbage.

**3224FJ Fun Jen** (45 days) Open-pollinated. A good lettucy-type Chinese cabbage featuring fast-growing undulating leaves with a slightly wrinkly surface. Semi-loose conical very light yellow-green ruffled 6x10" heads of crunchy texture and very mild delicate flavor somewhat like lettuce. The thick white ribs are tasty with a pleasing light tangy sweetness. Excellent frost resistance but will bolt in heat after standing 2–4 weeks. Stores very well. Seed from Known-You in Taiwan. ③
**A**=1/16oz, $1.10 **B**=1/8oz, $2.00
**C**=1/2oz, $4.50 **D**=1oz, $6.00
**E**=4oz, $12.00 **K**=1lb, $38.00



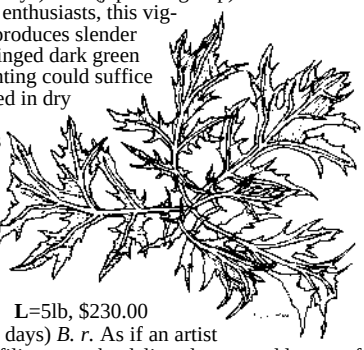
**3225BL Blues** (52 days) F-1 hybrid. Good bolt resistance, disease resistance and taste in this napa type. Flavor is relatively pungent. Suitable for planting early spring through July. Moderate tolerance to virus, DM, ALTS, BSR. ⑤
**A**=1/16oz, $2.50
**B**=1/8oz, $4.80
**C**=1/2oz, $19.00
**D**=1oz, $35.00
**E**=4oz, $130.00

## MUSTARD

**1/16 oz packet sows 40 ft. ~15,600 seeds per oz.** Incorporating the residues of mustard crops into your soil can reduce fungal diseases in your succession crop. Mustards are potent soil fumigants.

*Note: We cannot ship packets larger than 1/2 oz of Mizuna and other mustards into the Willamette Valley.*

**3228MO Early Mizuna OG** (40 days) *B. r.* (japonica group) Recommended for northland salad enthusiasts, this vigorous heirloom Japanese mustard produces slender white stalks with deeply cut and fringed dark green leaves, not at all pungent. One planting could suffice for full-season production if watered in dry spells and kept cut, though a few will bolt in September. Many folks will prefer to make three or more succession plantings because the young leaves are the most tender. Biennial. Essential in mild mesclun. MCCO-certified. ⑤



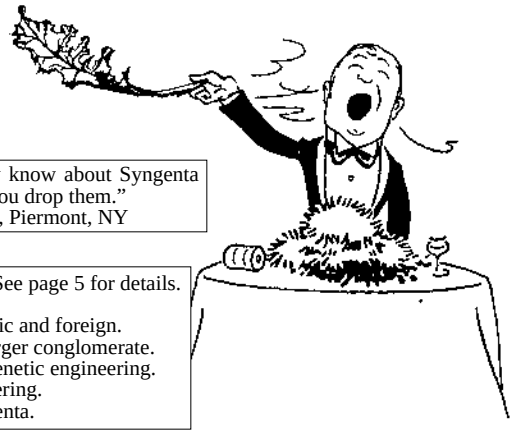
**A**=1/16oz, $1.30 **B**=1/8oz, $2.50
**C**=1/2oz, $4.50 **D**=1oz, $7.00
**E**=4oz, $18.00 **K**=1lb, $55.00 **L**=5lb, $230.00

**3229RO Ruby Streaks OG** (40 days) *B. r.* As if an artist had carefully brushed deep purple filigree on the delicately serrated leaves of mizuna. Clayton Carter calls it "everything that the so-called Purple Mizuna should be." Bold coloring on deeply toothed leaves. Germinates quickly, grows speedily but, unlike Mizuna, bolts rapidly. Great for multiple spring and fall cuttings, but cannot stand heat. Provides a striking contrast when bunched either with **3228** Mizuna, **3222** Tokyo Bekana or **3209** Maruba Santoh. Also unlike Mizuna, has a sweet and spicy flavor, though not excessively hot. Even after it bolts, its flower buds and yellow flowers can add a tang to salads. Carter calls it "the staple of my salad and braising mixes." "A big hit with my chef clients," reports Georgie Smith of Coupeville, WA. Color deepens toward darker maroon in the cool of autumn. WA-certified. ①
**A**=1/16oz, $1.50 **B**=1/8oz, $2.60 **C**=1/2oz, $5.40 **D**=1oz, $8.50
**E**=4oz, $27.00 **K**=1lb, $105.00

**3230MO Mizspoona Salad Selects Gene Pool OG** (40 days) *B. r.* Hits the palate just right: doesn't bite the tongue off like some of the serious mustards, nor bore with blandness. Sweet, juicy with a bit of zing, medium-dark green variable leaves, some rounded, some pointed, slightly ribbed white veins. Tender and delicious in salads or braised. From Frank Morton. OT-certified. Ω ①
**A**=1/16oz, $1.60 **B**=1/8oz, $2.80 **C**=1/2oz, $6.50 **D**=1oz, $12.00
**E**=4oz, $40.00 **K**=1lb, $125.00

**3231GF Golden Frill** (20 days baby, 40 days mature) *B. r.* Light golden-green leaves curl and furl, lift and separate, adding flounce to your salad mix. Intricate serration of foliage seems almost laser cut. Its mustard flavor gives an acute peppery zing. Grows quickly for use as a baby green throughout the year and, at sauté size, resists bolting in the summer heat. Lacy texture tolerant to flea beetle damage. Rising Up Farm, in Belfast, ME, always includes Golden Frill in their salad mix. ❄ ⑤ **NEW!**
**A**=1/16oz, $1.40 **B**=1/8oz, $2.40 **C**=1/2oz, $4.50 **D**=1oz, $7.50
**E**=4oz, $20.00 **K**=1lb, $62.00

**3233LO Pink Lettucy Mustard Gene Pool OG** (40 days) *B. r.* Morton selected well-mixed breeding pools for disease resistance and particularly for pink and purple pigmentations on the midribs. There is still a lot of variation in leaf color (from light green to green with purple edges), in indentations of the leaf edges and some in midrib coloration. Morton continues to select from the pool for specific types and you can, too. He is particularly interested in creating more color for baby cut salad mixes. Commercial operations will find a wealth of good cutting, home gardeners terrific salad fixings, mild but with just enough tang to keep you interested. Survived Roberta's overwinter trial. OT-certified. ❄ Ω ①
**A**=1/16oz, $1.60 **B**=1/8oz, $2.80 **C**=1/2oz, $7.00 **D**=1oz, $12.50
**E**=4oz, $42.00 **K**=1lb, $130.00



"Given what we now know about Syngenta and Atrazine, I vote you drop them."
–Joan Dye Gussow, Piermont, NY

**Supplier Codes** Know where your seed comes from! See page 5 for details.
① Small seed farmers including Fedco staff.
② Family-owned companies or cooperatives, domestic and foreign.
③ Domestic and foreign corporations not part of a larger conglomerate.
④ Multinationals not to our knowledge engaged in genetic engineering.
⑤ Multinationals who are engaged in genetic engineering.
⑥ Manufacturers of neonicotinoids: Bayer and Syngenta.

## MUSTARD continued

**3234SG Spicy Green** (21 days baby, 41 days mature) *B. r.* Mild yet snappy, Spicy Green out-tasted 12 contenders in its class of finely lobed wasabi-flavored mustard greens. Beautiful, vibrant and viridescent, it grows to 4½" in just 21 days, ideal for cut baby greens. Develops into an elegantly furled and arching 12" long sauté leaf, withstanding summer's highs and autumn's lows with equal finesse. Packed with isothiocyanates, known to neutralize cancer-causing chemicals and interfere with tumor growth. ❄ ⑤ **NEW!**
**A**=1/16oz, $1.20 **B**=1/8oz, $2.20 **C**=1/2oz, $4.50 **D**=1oz, $7.50
**E**=4oz, $20.00 **K**=1lb, $60.00

**3235GW Green Wave** (45 days) *B. juncea* This 1957 AAS winner is the best-adapted mustard for our climate. Its hot mustardy flavor makes it a prime ingredient in piquant mesclun. Not as hot when cooked. Will come back when cut; slow to bolt. Survived Roberta's overwintering trial. ❄ ②
**A**=1/16oz, 90¢ **B**=1/8oz, $1.60 **C**=1/2oz, $2.50 **D**=1oz, $4.50
**E**=4oz, $8.00 **K**=1lb, $28.00

**3236RO Red Giant OG** (45 days) *B. j.* (integlifolia group) Large purple-tinted savoyed leaves make the 18" plants very decorative. Color intensifies in cooler temperatures. Tastes like horseradish to some, peppery to others. It is less hot during cool weather. This heirloom Japanese mustard is a standard ingredient in spicy mesclun. Survived outdoor temperatures down to 18° when double-covered with Agribon 19. CCOF-certified. ❄ ③
**A**=1/16oz, $1.30 **B**=1/8oz, $2.50 **C**=1/2oz, $4.50 **D**=1oz, $7.00
**E**=4oz, $18.00 **K**=1lb, $58.00

**3239PO Osaka Purple OG** (45 days) *B. j.* Striking large purple-streaked green foliage with a zesty flavor that leaves a lingering tingle on the tongue. As the temperatures grow hotter, so do the leaves. A rapid grower, but more compact than Red Giant, mature at 12–14". Broad stems are also succulent. Used like Red Giant for mesclun and braising. Heldover seed tests at 89%. AGRIOR-certified. ③
**A**=1/16oz, $1.50 **B**=1/8oz, $2.80 **C**=1/2oz, $4.80 **D**=1oz, $8.50
**E**=4oz, $28.00 **K**=1lb, $105.00

**3246PO Purple Rapa Mix Gene Pool OG** (45 days) Another of Morton's distinctive gene pools, Purple Rapa Mix is a select population of breeding material from crossing Pink Lettucy and Wong Bok with Scarlet Ohno. In his Wild Garden Seed catalog, Morton advertises it as "huge seeds for big competitive seedlings." Competitive is an understatement. As President Kennedy would have said, this one has "vigah," racing out of the starting gate and never looking back. Morton says best color in winter, but it showed plenty when planted April 18, nice tall frilly medium-hot serrated green leaves with purple veins and shading, with plenty of interesting variation between plants. Refusing to bolt, they grew into giants by July 4, sporting juicy midribs with an invigorating tang that gained heat as the weather did. Plenty of great salads here. OT-certified. Ω ①
**A**=1/16oz, $1.50 **B**=1/8oz, $2.80 **C**=1/2oz, $6.50 **D**=1oz, $12.00
**E**=4oz, $40.00 **K**=1lb, $130.00

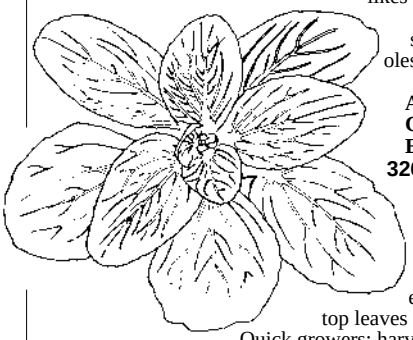
**3253ZO Torazironh OG** (45 days) *B. alboglabra* A robust performer with just the right kind of mustardy bite. Rapidly develops prolific yields of very dark green large leaves distinctively but not overwhelmingly pungent. Has won many favorable reviews from brassica lovers. Stems, also edible, have a flavor somewhat like pac choy. Relatively slow to bolt. OT-certified. ①
**A**=1/16oz, $1.40 **B**=1/8oz, $2.60 **C**=1/2oz, $5.50 **D**=1oz, $9.00

"Love your prices and many sizes of seed packs."
–Greg/Mary Hughes, Moscow, ID

## PAC CHOY *B. r.* (chinensis group)

**1g packet sows 18 ft, 1/16 oz packet sows 30 ft, ~12,500 seeds per oz.** Also known as Bok Choy. Pac choy and carrots are among the best sources of beta carotene.

**3260SH Shuko** (45 days) F-1 hybrid. Baby pac choy with green stems likes cool temperatures but resists bolting for a long time, even in heat. Vase-shaped plants have broad green petioles with beautiful dark leaves. 6–12". ⑤



**A**=1/16oz, $1.30 **B**=1/8oz, $2.50
**C**=1/2oz, $4.50 **D**=1oz, $8.00
**E**=4oz, $21.00 **K**=1lb, $70.00

**3264PP Purple** (48 days) F-1 hybrid. Adds versatility to mixes and salad. This new color in pac choy debuted in many 2009 seed catalogs. My favorite of several strains in the trial, showed the most vigorous early growth and darkest hue. Purple top leaves contrast with green veins and stems. Quick growers; harvest them within three weeks as 4–6" baby-leaf greens, their best spring use. For fall crops you may allow them to grow 8–10" full-sized heads. Along the way they lose some of their deep color and mature to a greenish purple. The purple coloring in vegetables such as this comes from anthocyanins, which improve memory and cell health. ③
**A**=1g, $2.90 **B**=2g, $5.40 **C**=4g, $10.00 **D**=14g, $28.00
**E**=28g, $55.00

**3270PO Prize Choy OG** (50 days) Classy open-pollinated pac choy with celery-like white stems and vase-shaped 15–18" tall heads, like two vegetables in one with succulent stems and tender greens. Good for kimchi or stir-fries. WA-certified. ①
**A**=1/16oz, $1.50 **B**=1/8oz, $2.80 **C**=1/2oz, $6.50 **D**=1oz, $12.00
**E**=4oz, $40.00 **K**=1lb, $115.00

**3273JC Joi Choi** (50 days) F-1 hybrid. Why choose a hybrid pac-choi? Leaves are much darker green than Prize Choy's and its basal stem is almost double the thickness, making it so succulent that trialer Adam Tomash prefers it to all other varieties. Market growers will appreciate its uniformity. Suitable both for summer and fall crops, though much less likely to bolt in the fall. Do not disturb the roots when transplanting and space 1' apart. ⑤
**A**=1g, $1.90 **B**=2g, $3.60 **C**=4g, $6.60 **D**=14g, $18.00
**E**=28g, $32.00

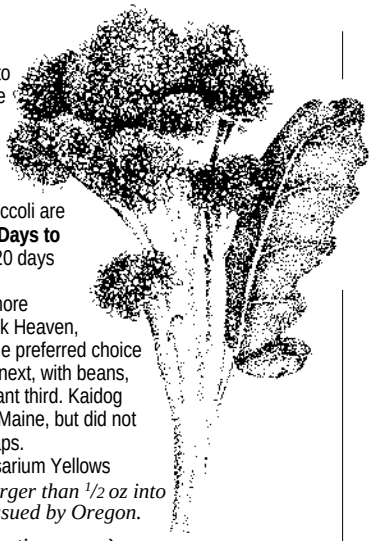
## PERILLA *Perilla frutescens*

**~500 seeds per g.**
**Culture:** To break dormancy, freeze and thaw the seed several times over a 21–45 day period. Soak seeds several days or until they sprout. Move to indoor flats, then transplant into warm moist well-drained soil. Grows up to 4'. Absolutely intolerant of frost.

**3282GP Kaori Green Shiso** (85 days) *P. f.* var *crispa* Years ago, we carried a green perilla, but when the grower stopped producing it, we were unable to find a new source. Now, after a long hiatus, it's back. For true shiso aficionados, this is the more culinary variety; the red perilla is used primarily to add color to dishes. A friend waxes poetic about the virtues of shiso: it's like biting into how a fragrant flower smells. ③ **NEW!**
**A**=1g, $1.80 **B**=4g, $6.00 **C**=12g, $13.50 **D**=36g, $33.00

**3283RS Red Shiso** (85 days) Introduced from Japan in the 1850s. Its extremely ornamental curly purplish-red cinnamon-scented sharp-flavored leaves are used in sushi, sweet and sour sauces and stir-fries. Also known as *zi su*, a specific in Chinese medicine for seafood poisoning. Louise Weber of Greenwich, CT, asserts that deer won't touch it and plants it around their favorite crops. ③
**A**=1g, $1.50 **B**=4g, $4.40 **C**=12g, $10.00 **D**=36g, $24.00

# BRASSICA



**Culture:** Hardy. Require warm temperatures to germinate, but need 60s during seedling stage for optimal growth; higher temperatures make seedlings leggy. Heavy feeders; for best growth, need regular moisture and 2–3' spacing. Have done well for us succeeding onions and garlic in beds. Cauliflower and broccoli are damaged by hard frosts, especially in spring. **Days to maturity are from direct seeding.** Subtract 20 days from date of transplanting.

**Pests & diseases:** See the insert below for more details. Based on six years here in Woodchuck Heaven, broccoli and brussels sprouts seedlings are the preferred choice for groundhog gourmets. Young edamame is next, with beans, carrot and parsnip tops and sweet corn a distant third. Kaidog kept me groundhog-free for over a decade in Maine, but did not make the move here. Gene uses Havahart traps.

**Diseases:** DM = Downy Mildew FY = Fusarium Yellows

*Note: We cannot ship brassica packets larger than 1/2 oz into the Willamette Valley because of a rule issued by Oregon.*

## BROCCOLI *B. oleracea* (botrytis group)

**2 g packet sows 45 ft. Average varies by cultivar from ~5,000-8,000 seeds/oz.**

**Culture:** Start broccoli indoors March–May for setting out May–July, or direct-seed in May or June for fall crop. Easier as a fall crop because many varieties perform poorly in hot summers. For better stands in dry conditions sow in trenches and keep irrigated. Broccoli dislikes extreme temperature and moisture fluctuations of the kind we have endured in recent seasons. Climate change is making it a challenge to grow even the more heat-tolerant varieties in the summer, while at the same time lengthening and making more temperate our New England falls, broadening growers' windows of opportunity.

**Nutrition and disclaimer:** Broccoli contains significant levels of sulforaphane, a substance that helps detoxify carcinogens from the body. Some years back, research indicating that broccoli seed sprouts are higher in sulforaphane than the vegetable itself caused a run on open-pollinated broccoli seeds. *The broccoli seed we offer is not food grade and we cannot guarantee that it is fit for human consumption as sprouted seeds. We have no control over the conditions in which it is stored before it reaches us. Please contact your natural foods wholesaler or retailer for sprouting seed.*

**3303TG Tendergreen** (67 days) F-1 hybrid. Up to a week earlier than Packman's flat-top with a better looking 6–7" semi-domed head, though not stalwart in extreme heat. The medium-large beads do a good job of shedding water. Pleasing blue-green color, tender and delicious flavor. No side-shoot production. Heads matured Sept. 5, 2007, from a July 11 transplanting. Heads are lighter weight than the later-season varieties. ③

**A**=0.5g, $1.30 **B**=1g, $2.40 **C**=4g, $6.30 **D**=14g, $14.00 **E**=28g, $25.00

**3304LM Limba** (70 days) So rare these days to find a reasonably priced open-pollinated broccoli that can perform in our summers. We thank staffer Michele Hansen who unearthed the Czech seed company who supplies us with this gem. Donna Dyrek started harvesting its light blue-green 8" semi-domed heads during the first week of August. It proved a good home-garden variety with medium beads, good flavor and texture, slow to bolt and a decent producer of side shoots, though not so many as Fiesta. All seed is held over. Web special last year; **BACK!** in the catalog. ③

**A**=2g, $1.30 **B**=4g, $2.50 **C**=14g, $7.50 **D**=28g, $14.00 **E**=112g, $45.00

Major pests: Cabbage Looper, Diamondback Moth, Imported Cabbageworm
Cultural controls: control cruciferous weeds near crop fields, till-under crop debris of early-season brassicas after harvest.
Materials: Spinosad (**8922-4**), Bt (**8902**).

Pest: Flea Beetle
Cultural controls: floating row covers (**9101**), mulch with straw, time plantings for fall harvested crops only, crop rotation, perimeter trap cropping.
Materials: Spinosad (**8922-4**), Pyganic (**8925**), Mycotrol O (**8898**).

Pest: Cabbage Root Maggot
Cultural controls: time planting to avoid first hatching, use row covers, control weeds.
Material: Nematodes (**8941-3**).

Major diseases: Black Rot, Alternaria Leaf Spot, Blackleg, Club Root, Downy Milldew, White Mold
Cultural controls: avoid transplanting plants with yellow leaves or v-shaped lesions, crop rotation, destroy crop debris after harvest, avoid overhead irrigation, control weeds, allow for good air movement.
Materials: Actinovate (**8851**), copper compounds (**8861-3**) may help for some of these diseases.

Disease: Head Rot
Cultural controls: use well-domed varieties, harvest heads when tight, cut stalks at an angle.
Material: copper

**3306SO Solstice OG** (71 days) Open-pollinated; has rapidly gained a following. Also known as Oregon Long Neck; its tall leggy plants give it its alias. Dyrek harvested her first trial head in 2012 right on the summer solstice from an April 11 start. Its mild sweet heads, at 4–5" across, are intermediate between **3327** Piracicaba's and those of the domed hybrids. Among the half dozen open-pollinated broccolis in our trial, Solstice was the most uniform and the sweetest, smaller in the summer and tastier in the fall even though they turn purple in frost. Solstice is more noted for its zillion side shoots that follow the main head. Best suited as a fall crop. OT-certified. Ω ①

**A**=0.5g, $1.30 **B**=1g, $2.40 **C**=4g, $6.00 **D**=14g, $14.00 **E**=28g, $25.00

**3309GS Green Super** (85 days) F-1 hybrid. At PEAS Farm in Missoula, MT, erratic weather put last summer's brassica trial to the test. While a few late varieties survived the fluctuations, farm caretaker Ellie Costello deemed this midseason broccoli "phenomenal." No matter the challenges, Green Super came through with beautiful long-holding 7" wide and 3" deep domes. Back in our Maine trials, with more cooperative weather, Donna Dyrek marveled, "Have you seen the Green Super? It's just perfect." We found Green Super holding its deep green pound-plus tight-beaded heads above splayed leaves for easy one-chop harvest. After the primary cut, the second growth created side heads, not ho-hum shoots. Super's very healthy, very compact form just begs to be snugly planted in efficient successions. Costello loved "Super Broc" roasted, and we enjoyed its excellent flavor and texture raw. Good eating combined with exemplary performance and space saving. ③ **NEW!**

**A**=0.5g, $1.50 **B**=1g, $2.60 **C**=4g, $6.20 **D**=14g, $15.00 **E**=28g, $26.00

**3311GK Green King** (85 days) F-1 hybrid. Exceptional tenderness made it the best-tasting of 23 varieties in our trial. King also scored high for its consistent yield of high-quality 8" heads. Market growers appreciate its uniform ripening. Vigorous plants bear thick blue-green domed heads with rather large beads. Side shoots are big enough to be marketable but not plentiful. Green King stands heat well. ③

**A**=0.5g, $1.60 **B**=1g, $2.60 **C**=4g, $6.50 **D**=14g, $16.00 **E**=28g, $28.00

**3312FO Fiesta OG** (86 days) F-1 hybrid. Our first organic hybrid broccoli and top seller among the brocs, good for midseason. Compact plants set uniform bright green tightly domed heads that stand both cold weather and heat with considerable aplomb. We were amazed by its unprecedented production of side shoots. One day in early October 2007 I harvested ten from one healthy plant, the largest as big as a main head at 6–7", several others nearly as hefty, enough to comprise 3–4 supermarket bunches. OT-certified. ④

**A**=0.2g, $2.60 **B**=0.4g, $4.80 **C**=1g, $10.00 **D**=4g, $34.00 **E**=28g, $210.00

**3313BM Bay Meadows** (89 days) F-1 hybrid. The famous Bay Meadows Handicap was twice won by Seabiscuit. If your broccoli program is handicapped in the heat, Bay Meadows has, in the estimation of both Alan LePage and Adam Tomash, supplanted **3322** Arcadia as your best bet for summer broccoli. "Another leap in productivity, beautiful dark green heads," praises LePage. When June's cold squalls abruptly yielded late in the month to steamy humidity, it was my lone 2013 survivor. All others buttoned up, developed weird misshapen heads or otherwise melted down. Also performed well for Tomash and June Zellers, ripening "without a hiccup" and with great taste and appearance in the much hotter 2012 midsummer season. Well-domed 6–8" heads with blue-green beads atop strong plants. If you sidedress the plants after cutting the main heads, they will give robust side shoots huge enough to pass as main heads, says LePage. If you'd have bet on Seabiscuit, bet on Bay Meadows. ⑥

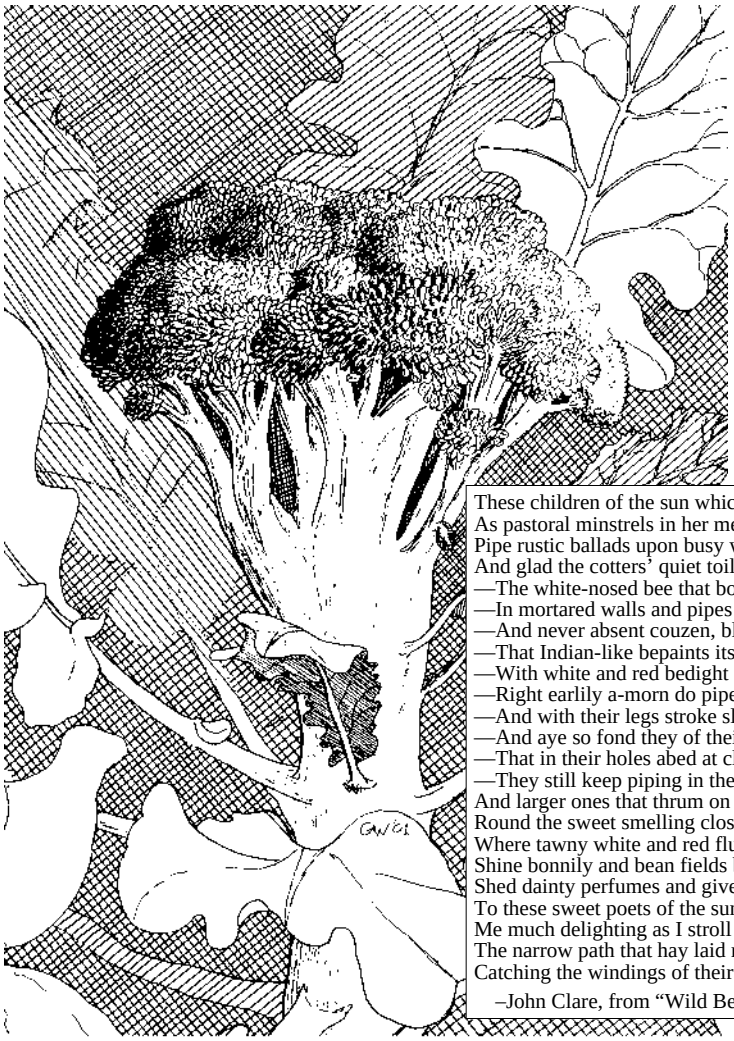
**A**=0.5g, $1.60 **B**=1g, $2.60 **C**=4g, $6.50 **D**=14g, $16.00 **E**=28g, $28.00

**3314GV Green Valiant** (90 days) F-1 hybrid. Valiant, a premier fall broccoli that makes beautiful tight 8–9" heads, is also a notable producer of prolific side shoots, second only to **3312** Fiesta. Compact plants with very dense light green heads on heavy stems. Not recommended for midsummer when heat causes irregular heading. All seed is held over, 2 lots testing at a minimum of 88%. ⑤
**A**=0.5g, $1.90 **B**=1g, $3.60 **C**=4g, $10.50 **D**=14g, $28.00
**E**=28g, $50.00

**3315GY Gypsy** (91 days) F-1 hybrid. This variety is produced by cell fusion. Although considered a form of genetic engineering in Europe, the cell fusion technique used to breed Gypsy does not employ recombinant DNA technology. The NOP ruling that cell fusion used as part of traditional breeding techniques may be permitted in organic production opened the door to our wandering Gypsy. Gypsy has in common with its namesakes the ruggedness to thrive in many different environments holding up reasonably well in the heat of summer, the cool of autumn, and in less-than-stellar soil. A reliable producer of large dome-shaped medium-green 8" heads with medium-tight beads that shed water well. Very uniform, very consistent. Stems and plants capable of growing massive; Adam Tomash harvested one head weighing 2.7 lb. From a May 15 indoor start, he cut his first main head on Aug. 14, 2012. Donna's was a little later on Sept. 2. Our trialers rate its flavor as excellent, sweet and tender. Sparse producer of side shoots. Tolerant to DM. PVP. ⑤
**A**=0.5g, $1.80 **B**=1g, $3.40 **C**=4g, $10.00 **D**=14g, $28.00
**E**=28g, $48.00

**3316PO Purple Peacock Gene Pool OG** (92 days) Open-pollinated. A gourmet ornamental edible cross by Frank Morton of a large green broccoli with two colorful kales. Although this iteration is more uniform than previous ones, it is still somewhat variable. Wavy-looking deeply cut purple leaves with rounded edges are punctuated by pink veins. The sweet broccoli flavor of the head and abundant side shoots is augmented by the kale-like qualities of the leaves, especially as fall delivers its first cold nights. An imposing plant 2½' tall, spreading 2–3' makes quite a spectacle. Purple leaves, stems and heads cook to a dark green or can be enjoyed raw in salads. OT-certified. Ω ①

**A**=0.5g, $1.30 **B**=1g, $2.40 **C**=4g, $4.50 **D**=14g, $9.50
**E**=28g, $15.00



These children of the sun which summer brings
As pastoral minstrels in her merry train
Pipe rustic ballads upon busy wings
And glad the cotters' quiet toils again.
—The white-nosed bee that bores its little hole
—In mortared walls and pipes its symphonies,
—And never absent couzen, black as coal,
—That Indian-like bepaints its little thighs,
—With white and red bedight for holiday,
—Right earlily a-morn do pipe and play
—And with their legs stroke slumber from their eyes.
—And aye so fond they of their singing seem
—That in their holes abed at close of day
—They still keep piping in their honey dreams,
And larger ones that thrum on ruder pipe
Round the sweet smelling closen and rich woods
Where tawny white and red flush clover buds
Shine bonnily and bean fields blossom ripe,
Shed dainty perfumes and give honey food
To these sweet poets of the summer fields;
Me much delighting as I stroll along
The narrow path that hay laid meadow yields,
Catching the windings of their wandering song.…

–John Clare, from "Wild Bees"

**3318TO Thompson OG** (92 days) Open-pollinated. A breeding coup by Tim Peters, who has done much work with open-pollinated broccoli. When grown under fertile conditions, Thompson shows excellent resistance to stress and consistently well-formed dark green heads that average 5–6" in diameter with good side-shoot production. For fall crops. All seed is held over, tested at 88%. CCOF-certified. ①
**A**=0.5g, $1.60 **B**=1g, $3.00
**C**=4g, $10.00 **D**=14g, $32.00
**E**=28g, $60.00

**Weight equivalents**

| | | |
|---|---|---|
| 1 gram = | .035 oz | |
| 2 grams = | .070 oz | |
| 3 grams = | .106 oz | |
| 4 grams = | .141 oz | |
| 7 grams = | .247 oz | |
| 10 grams = | .355 oz | |
| 14 grams = | .494 oz | |
| 15 grams = | .528 oz | |
| 20 grams = | .710 oz | |
| 28 grams = | .987 oz | |
| 100 grams = | 3.53 oz | or .220 lb |
| 112 grams = | 3.95 oz | or .247 lb |
| 225 grams = | 7.93 oz | or .496 lb |
| 340 grams = | 11.99 oz | or .750 lb |

**3320WM Waltham 29** (92 days) Developed in 1951 and long considered the standard open-pollinated fall broccoli. We've found a reliable strain that consistently produces 6" heads with medium beads on attractive stocky 20" plants. Waltham delivers good-sized central heads, but no side shoots. *Caution: not suitable for summer crops; will not head properly in heat.* ②
**A**=2g, 90¢ **B**=4g, $1.60 **C**=14g, $3.00 **D**=28g, $4.50
**E**=112g, $7.00 **K**=448g, $17.50

**3322AR Arcadia** (94 days) F-1 hybrid. Once LePage's favorite summer broccoli, he still regards workhorse Arcadia as "a great variety for wonderful first heads." Big rugged Arcadia rocks in conditions that reduce other broccolis to compost, standing up not only to some heat, but also to rot, mildew and cold stress. Arcadia's gently mounded dome-shaped frosty bluish-green heads of very refined small beads are consistently marketable and hold a long time. You never know what global warming might bring, so be prepared with Arcadia. ⑤
**A**=0.5g, $1.90 **B**=1g, $3.60 **C**=4g, $10.50 **D**=14g, $28.00
**E**=28g, $55.00

**3325UO Umpqua OG** (95 days) Open-pollinated. Developed in 1990 by Tim Peters, gets its name from the Umpqua River in Oregon. Handsome uniform dark-green 5–6" heads. A great producer of abundant side shoots over a long harvest window, Umpqua is an ideal home-garden variety for the fall. Short crop; *order early!* OT-certified. ① **BACK!**
**A**=2g, $1.80

**3326BB Broccoli Blend** (67-94 days) A mix of varieties in one packet for home gardeners who want broccoli to mature over a long season. Begin your harvest with Tendergreen and carry through to Arcadia without having to purchase a full packet of each. Varieties in the mix change with availability, but no Romanesco or Piracicaba.
**A**=0.5g, $1.70 **B**=1g, $3.30 **C**=4g, $10.50 **D**=14g, $28.00

## Non-Heading Broccoli *B. o.* (botrytis group)

**3327PC Piracicaba** (56 days) Open-pollinated. This broccolini type has garnered many accolades. Alan LePage finds its flavor superior to that of hybrid broccoli and notices his customers increasingly choosing it instead. About halfway between a heading broccoli and a broccoli raab, these succulent tender small green heads with very large beads make delightful raw eating. Very loose heads, lots of side shoots, sweet stalks. Even the fairly large leaves make excellent greens. Garden writer Barbara Damrosch found it equally delicious steamed. LePage says side-dressing it in the summer yields great cuttings in the fall. NY State trialers report it is best as a fall crop with relatively good frost tolerance, although it was bred in Brazil in the city of its name (pronounced peer-a-SEA-cah-bah) to withstand heat. It thrived all summer under row cover in a low tunnel as I outwitted my groundhogs. ②
**A**=2g, $1.30 **B**=4g, $2.40 **C**=14g, $4.00 **D**=28g, $7.00
**E**=112g, $20.00 **K**=448g, $72.00

## Romanesco *B. o.* (botrytis group)

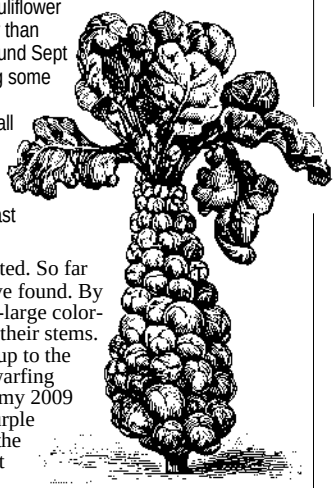
One of the most beautiful of plants when grown well. Chef Odessa Piper calls romanesco's cone-shaped somewhat irregular whorl of chartreuse florets "broccoli on acid."
**Culture:** Needs adequate spacing, a long season and extremely high soil fertility. We had fantastic results planting in raised beds with 8" of well-rotted manure. Well-grown plants are huge and need about 10 sq ft each. Should be started indoors in March or April and transplanted out in late May or June. Be patient; needs a long season but doesn't mind cool weather.

**3329VR Veronica** (98 days) F-1 hybrid. A reliable and refined version of Romanesco broccoli. Tender and delicate as a crudité, sweetness with a fine brassica zing, quite flavorful cooked. First ripened Sept. 16-19, 2013, for trialer Donna Dyrek and was still producing in mid-October from a May 27 greenhouse start. The supplier claims average weight is 4 lb per head, but in conditions of high fertility and wide spacing, Dyrek's averaged 8" across and 5 lb, not quite as large as Tipoff. For fall production only. Resists purpling and red tipping during heat. ④
**A**=0.1g, $2.50 **B**=0.3g, $7.00 **C**=1.2g, $24.00
**D**=6g, $90.00

## BRUSSELS SPROUTS *B. o.* (gemmifera group)

**~5,000 seeds/oz, 175 seeds/g.**

**Culture:** My cole crop of choice, but fussy like cauliflower and requires a long season. Start indoors no later than early April and transplant into very fertile soil. Around Sept 1, top the plants. When I experimented by topping some and leaving others, the difference was dramatic. Within two weeks the topped plants were putting all their energy into making sprouts while the untopped plants continued to shoot up more foliage and make only miniscule sprouts. Very hardy, improved by frost and can be harvested past the first snowfall.



**3336RN Roodnerf** (96 days) Open-pollinated. So far the best open-pollinated brussels sprout we've found. By late September 2007 these vigorous medium-large colorful plants had set plump green sprouts along their stems. These were robust and flavorful berries, not up to the size of the best hybrids or as uniform, but dwarfing those of the OP competition. Not as good in my 2009 trial on sandy loam; they may prefer clay. Purple stems along axils lend a decorative touch to the plants. No new crop; held over seed tested at 85%; seed in short supply, *order early.* ②

**A**=2g, $1.60

**3339GU Gustus** (99 days) F-1 hybrid. My find from 2009, the coldest summer in forty years. I have never grown such robust brussels sprouts plants before or since. Michael Zuck of Bangor, ME, judges Gustus as "the absolute pinnacle of the brussels sprouts breeder's art." He says, "I just prepared some for dinner (March 16, 2014), and they looked as good as when I put them in the fridge last November. The quality of the sprouts is amazing, very dense and sweet. No other sprout compares with Gustus, and I've tried as many varieties as I could get my hands on over the years. I believe with 32˚ refrigeration they might keep into June." The sprouts are medium-sized, slightly oval, remarkably uniform (perfect for market) and grow large farther up the stalk after the plants get topped. In 2009 they showed not a hint of rot, even after two hurricane rains. A representative sample of 10 weighed a respectable 6 oz. Won our taste test with a smooth texture and no cole-ish aftertaste. Enjoy them with gusto! ⑥

**A**=0.5g, $2.70 **B**=1g, $5.20 **C**=4g, $18.00 **D**=14g, $55.00
**E**=28g, $105.00

**3341FS Falstaff** (102 days) Open-pollinated. We loved the beauty of red varieties such as Rubine, but never could get a single sprout to mature until we found Falstaff. Falstaff is not only ornamental but also extremely savory. Scout Proft of Someday Farm CSA in E. Dorset, VT, finds them "not as cabbagey" as other brussels sprouts. Her turkey pick-up customers who can see their purple stalks among the baskets of greens and whites really like them. Cooking brings out Falstaff's tender nutty sweetness while allowing it to retain bluish-purple pigments. It cooks quickly, though, so don't overdo it. Good production one year, only fair the next, sprouts with beautiful color, wide size variation, but most quite small compared to the green hybrids, and can be late coming. The color intensifies after a hard frost. The plants tend to sprawl. ③

**A**=0.5g, $1.60 **B**=1g, $3.00 **C**=4g, $7.50 **D**=14g, $16.00
**E**=28g, $30.00

**3344DB Diablo** (110 days) F-1 hybrid. Home gardeners have yet to give this devil its due. It might be a little slow getting going, but for those who have a long enough season, Diablo is dependable and productive. These are uniform good-looking solid medium-sized sprouts of good quality. A representative sample of 10 sprouts weighed 7 oz in the 2009 trial. CSA grower Jan Goranson recommended Diablo for its disease resistance and ability to produce a consistent sprout every time. ④

**A**=0.5g, $2.70 **B**=1g, $5.20 **C**=4g, $20.00 **D**=14g, $60.00
**E**=28g, $110.00

## CABBAGE *B. o.* (capitata group)

**~6,000-7,000 seeds/oz, 210-250 seeds/g.** Blue-purple foods such as red cabbage and purple cauliflower contain anthocyanins and phenolics, which benefit the urinary tract, memory and immune system.

**Culture:** Exposure to hoarfrost is good for cabbages. They double their sugar content after one month of cold.

Minimum germination soil temperature 40˚, optimal range 55–95˚, optimal temperature 77˚. Emergence takes 15 days at 50˚, 9 days at 59˚, 5 days at 77˚.

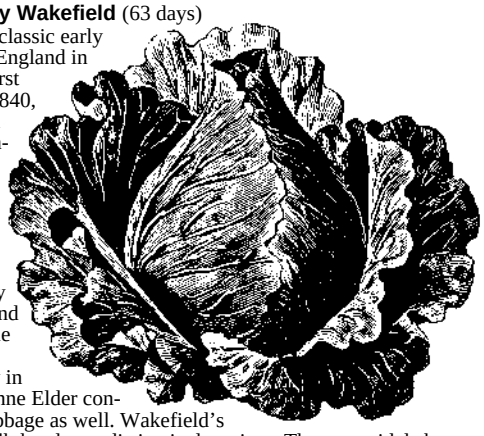
**Diseases:** For further information see the sidebar on page 51.

BR Black Rot
BS Bacterial Speck
FY Fusarium Yellows
TB Tipburn

**3352GA Golden Acre** (62 days) Open-pollinated. The best choice for those preferring an early open-pollinated cabbage that's not a pointy-headed intellectual from Jersey. A selection of the Copenhagen Market type billed as "new…the earliest of the round-headed cabbages" in the 1928 Jerome B. Rice catalog. Grey-green heads, some with a faint reddish tint in the outer leaves, average 3-5 lb. Our trialers found them big round and solid with white interiors. 75% of them were marketable. Tasters praised their delicate but crunchy texture, sweet and spicy flavor that developed buttery undertones after cooking. Short stems with sparse wrapper leaves and medium-sized core keep plants compact. Not long standing. Heldover seed tests at 92%. ②

**A**=2g, 90¢ **B**=4g, $1.60 **C**=14g, $3.00 **D**=28g, $4.50
**E**=112g, $9.00 **K**=448g, $18.00

**3355EJ Early Jersey Wakefield** (63 days) Open-pollinated. This classic early cabbage originated in England in the early 1800s, was first grown in America in 1840, perfected by a German truck gardener in northern New Jersey and released by Peter Henderson in 1868. Henderson in 1902 asserted that "it was more largely grown than all other first early cabbages combined" and called it an "old reliable always to be depended upon for its uniformity in earliness and crop." Anne Elder considers it a great fall cabbage as well. Wakefield's compact medium 2–3 lb heads are distinctively pointy. The pyramidal shape with sparse outside foliage permits close spacing. Tender flavorful waxy-looking Wakefield has stood the test of the ages and is still prized by home and market gardeners. We've seen some variation in our lot grow-outs, but this year all twelve plants were at least "roundy-pointy" if not uniform. Not for keeping. ②③



**A**=2g, 90¢ **B**=4g, $1.60 **C**=14g, $3.00 **D**=28g, $4.50
**E**=112g, $9.00 **K**=448g, $18.00

**3358GZ Gonzales** (66 days) F-1 hybrid. These days many families like compact cabbages. Commercial growers like them, too, because they can plant densely for a high return per acre. Gonzales is our choice in the early baby cabbage class. The round upright heads are slightly larger than softballs when mature, about 4–6" in diameter weighing no more than 3 lb. Good medium-green color with a short core. Dense, sweet and spicy with fair holding qualities. Tender, makes a good summer slaw. ④

**A**=0.5g, $1.90 **B**=1g, $3.60 **C**=4g, $10.50 **D**=14g, $28.00
**E**=28g, $54.00

**3362SG Summer Glory** (68 days) F-1 hybrid. OP **3355** Early Jersey Wakefield does not always have uniform pointy heads. Searching for that elusive combo of consistency, high quality and marketability, we put a range of hybrid cone heads to the test. More consistent than its OP counterpart, Glory's extreme compact form wasted no energy on outer leaves. Instead, we found attractive 3 lb Wakefield-style heads atop shockingly short and efficient 20" wide plants. Like **3309** Green Super broccoli, Summer Glory is great for dense plantings and successions. We were impressed by Glory's sweet-with-a-pinch-of-zing flavor and dense crisp texture. Summer Glory accomplishes what a good hybrid should: distilling and strengthening the best components of a classic. Note: Glory does not hold in the field, but does just fine in the cooler. ③ **NEW!**

**A**=0.5g, $1.60 **B**=1g, $2.80 **C**=4g, $6.50 **D**=14g, $18.00
**E**=28g, $33.00

**Supplier Codes** Know where your seed comes from! See page 5 for details.
① Small seed farmers including Fedco staff.
② Family-owned companies or cooperatives, domestic and foreign.
③ Domestic and foreign corporations not part of a larger conglomerate.
④ Multinationals not to our knowledge engaged in genetic engineering.
⑤ Multinationals who are engaged in genetic engineering.
⑥ Manufacturers of neonicotinoids: Bayer and Syngenta.

**3370SR Super Red 80** (80 days) F-1 hybrid. Super Red 80 ripens well before Ruby Perfection, with smooth tight round medium-dark red 3–5 lb heads. Splendid appearance will appeal to market growers. Resists splitting, holds better than **3358** Gonzales. Tender and crisp with a pleasing flavor. Tolerates BR and TB. ⑤

**A**=0.5g, $2.10 **B**=1g, $3.80
**C**=4g, $12.00 **D**=14g, $35.00
**E**=28g, $66.00

**3375RP Ruby Perfection** (85 days) F-1 hybrid. This fancy midseason type has produced some of the loveliest cabbage we've ever seen: solid deep purple-red spherical heads averaging 4–6 lb, occasionally reaching 8 lb. "Hard as a rock," observed Jason Kafka. A great storage cabbage; will keep till May in the root cellar. Low tolerance to BR. Survived outdoor temperatures of 18˚ double-covered under Agribon 19. ⑤

**A**=0.5g, $2.10 **B**=1g, $4.00
**C**=4g, $13.00 **D**=14g, $38.00
**E**=28g, $70.00

**3378ML Melissa Savoy** (85 days) F-1 hybrid. A gorgeous savoy, with 2–4 lb solid slightly flattened light green heads surrounded by attractive dark blue-green waxy wrapper leaves. Can grow twice that size given high fertility and wide spacing. A vigorous grower even in cold wet conditions, Melissa ripens around Sept. 1 from early June transplanting. Flavor improves with cold weather. Adapted to close spacing. For dependability, uniformity, attractiveness and taste, Melissa can't be topped. All seed is held over, tests better than 95%. FY, TB tolerant. ④

**A**=0.5g, $2.60 **B**=1g, $5.00
**C**=4g, $18.00 **D**=14g, $55.00
**E**=28g, $105.00

**3380FG Frigga Savoy** (86 days) Open-pollinated. Usually grows compact 3 lb round 6" balls, though under wide spacing and high fertility can achieve double that size. As handsome a plant as I ever hope to see with highly savoyed dark green wrapper leaves curling tightly around the core. Real cabbage flavor with some sweetness, texture on the dry side. Holds in the field for a month after maturity. For savoy connoisseurs. ③

**A**=2g, $1.50 **B**=4g, $2.80 **C**=14g, $5.50 **D**=28g, $9.00
**E**=112g, $28.00 **K**=448g, $90.00

**3384DV Des Vertus Savoy** (95 days) Open-pollinated. From the 1800s, also known as Large Drumhead Savoy. French variety features large medium-green heads averaging 4–6 lb. Flavor is mild and juicy, semi-sweet. Seed is held over; tests at 92%. ②

**A**=2g, $1.50 **B**=4g, $2.80 **C**=14g, $5.50 **D**=28g, $9.00
**E**=112g, $28.00 **K**=448g, $90.00

**3389RR Mammoth Red Rock** (100 days) Open-pollinated. A large late storage cabbage with firm flattened round 5–8 lb heads, 8–10" across and red-purple to the core. Rated as a good keeper with a crisp sweet taste. This open-pollinated favorite goes back to 1889. Vaughan in 1904 called it "the surest heading red cabbage ever introduced." R.B. Dunning & Co. of Bangor, ME, sold a packet for a nickel and an ounce for 35¢ in 1936. ②

**A**=2g, 90¢ **B**=4g, $1.60 **C**=14g, $3.20 **D**=28g, $5.50
**E**=112g, $10.50 **K**=448g, $24.00

**3390TB Tribute** (103 days) F-1 hybrid. This spectacular autumn cabbage made gigundo solid round 10–12 lb blue-green heads reaching 10" across that figuratively jumped out at me in the 2013 trial even though I wasn't planning to add another cabbage. 100% were marketable. Earlier and larger than **3394** Bartolo with huge wrapper leaves that provide perfect ground cover to stifle weeds. Unfortunately not a great keeper, softening and splitting by December, so enjoy it in fall when it is sweet and crunchy raw with a mild tang and a cabbage taste in its ribs. Such good flavor for such a big cabbage that it makes great sauerkraut. Remained sweet with a subtle brassica flavor when cooked, a close second or tied for first with Golden Acre for tops in our test. Fully ripe around Oct. 1 from a July 10 transplanting. Give this champ some space as well as Tribute. ③

**A**=0.5g, $1.30 **B**=1g, $2.40 **C**=4g, $5.50 **D**=14g, $12.00
**E**=28g, $22.00

**3391DD Deadon Savoy** (105 days) F-1 hybrid. Lovely savoyed pinkish-purple outer leaves dusted with grey are often used for garnish, while its light green interior core is great for salads and cole slaw. The outer color intensifies as temperatures cool in the fall. Sets solid medium-large 3–6 lb heads of 6–10" diameter with densely packed innermost leaves that are very sweet with a spicy nip. Dead certain to be a flavorful cool-weather treat. It even over-wintered in Donna's trials, so it can nourish you in spring as well as late fall. Heldover seed tests at 89%. Resists FY. ❄ ④

**A**=0.1g, $2.10 **B**=0.3g, $4.00 **C**=1.2g, $12.50 **D**=6g, $52.00

**3392GM Gunma** (110 days) F-1 hybrid. Named for a prefecture on Honshu Island in Japan known for its cabbage production. Our choice for a superior flat-topped green cabbage ideal for cooks and gourmets, good for kraut and kimchi. Its large 5–7 lb heads grow nearly 1' across, yet remain almost coreless. Although ready on Aug. 2 from a May 21 transplanting, these cabbages sat in the field for two months without splitting. Sweet tender wrapper leaves suitable for cabbage wraps and rolls. Outer leaves can't hold up once nighttime temperatures plummet to the 20s, so not for storage. All seed is held over, tests at 91%. Resists FY, TB ④

**A**=0.2g, $1.90 **B**=0.4g, $3.60 **C**=1g, $6.60
**D**=4g, $20.00 **E**=28g, $120.00

**3394BT Bartolo** (115 days) F-1 hybrid. Consider Bartolo if you need an excellent hybrid storage cabbage that will last until May. Sits high off the ground with large hard round 4–8 lb dark green heads, well protected with waxy thick serrated wrapper leaves. Very high-yielding and a beautiful plant in our trials, 90% marketable heads. Robust peppery flavor. Tolerates BS and TB. ④

**A**=0.5g, $2.70 **B**=1g, $5.20 **C**=4g, $20.00
**D**=14g, $68.00 **E**=28g, $130.00

**3397WR Wirosa Savoy** (125 days) F-1 hybrid. A savoy cabbage ideal for late autumn or capable of wintering over with protection. The solid uniform 8" glossy blue-green heads are closely wrapped with crinkly leaves. From an Aug. 18 start and mid-September transplanting, 4 of 6 survived a mild Maine winter with no protection except snow cover. They continued growing all the next summer, not finishing until mid-September, so as a winter cabbage they need more than a year. With an early spring start they'll be ready the same fall. Good yields and quality for fresh market and storage. ❄ ④



**A**=0.1g, $2.00
**B**=0.3g, $3.80
**C**=1.2g, $11.00
**D**=6g, $42.00
**E**=24g, $160.00

## CAULIFLOWER *B. o.* (botrytis group)

**~6,000-7,000 seeds/oz, 210-250 seeds/g**

**Culture:** Start like broccoli but needs more TLC. Do not allow to get pot-bound; avoid interruptions in growth. Cauliflower heads will "button" under stress. Most varieties can't stand the heat and are not suitable for summer production. When heads first appear, bend leaves over curd to prevent discoloring.

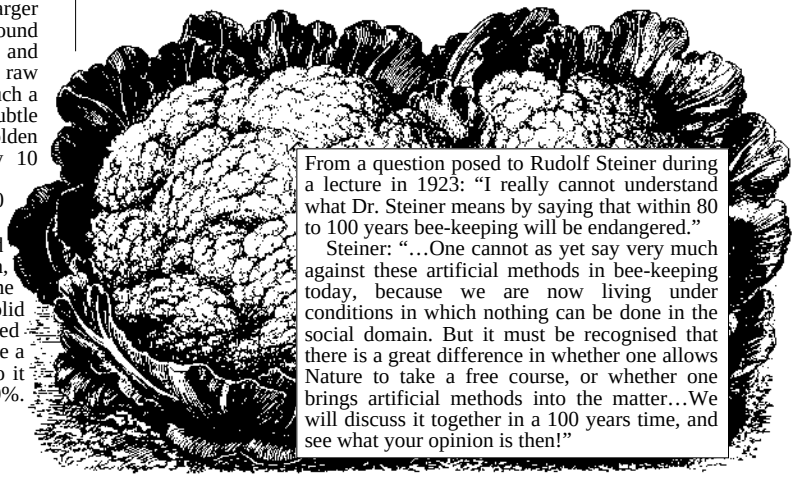
Minimum germination temp 40˚, optimal range 55–80˚, ideal temp 77˚. Emergence takes 20 days at 50˚, 10 days at 59˚, 6 days at 68˚, 63% normal seedlings at 77%, only 45% normal seedlings at 86˚.

**3404CS Charming Snow** (60 days) F-1 hybrid. Our first early cauliflower, a fine product of Taiwanese breeding. Its short white stems bear compact 1–2 lb uniform round firm white tight heads with fine beads. Though seeded as late as July 8, these were already heading for Donna Dyrek by the first of September. *Note: Heads not as dense or substantial as the maincrop varieties.* No new crop. All seed is held over, tests at 93%. *Seed in short supply; order early.* ③

**A**=0.5g, $1.50 **B**=1g, $2.60 **C**=4g, $6.00

**3410SC Snow Crown** (70 days) F-1 hybrid. Nothing comes close to Snow Crown for the second-early slot. Makes cauliflower a cinch to grow. Dependable producer of uniform 6–7" heads early summer through October. Drought resistant. Sometimes develops pink heads in adverse conditions. 1975 All-America winner from Takii. ⑤

**A**=0.5g, $2.10 **B**=1g, $4.00 **C**=4g, $11.00 **D**=14g, $38.00
**E**=28g, $65.00



From a question posed to Rudolf Steiner during a lecture in 1923: "I really cannot understand what Dr. Steiner means by saying that within 80 to 100 years bee-keeping will be endangered."

Steiner: "…One cannot as yet say very much against these artificial methods in bee-keeping today, because we are now living under conditions in which nothing can be done in the social domain. But it must be recognised that there is a great difference in whether one allows Nature to take a free course, or whether one brings artificial methods into the matter…We will discuss it together in a 100 years time, and see what your opinion is then!"

**3417GR Graffiti** (80 days) F-1 hybrid. As if aliens had landed in the cauliflower patch, the brilliant—almost psychedelic—purple of these good-sized heads is decidedly other-worldly and will draw customers to your market display. Vibrant Graffiti boasts a true cauliflower head on large plants with dark green leaves. Resists summer heat and performs even in drought, but very slow to head up in cool weather. Day-glo florets make delightful crudités, a delicious cooked vegetable or colorful kimchi. The color fades to bluish-purple when cooked, but can be preserved by adding a tablespoon of lemon juice to the cooking water. All seed is held over, germs at 91%. ⑥

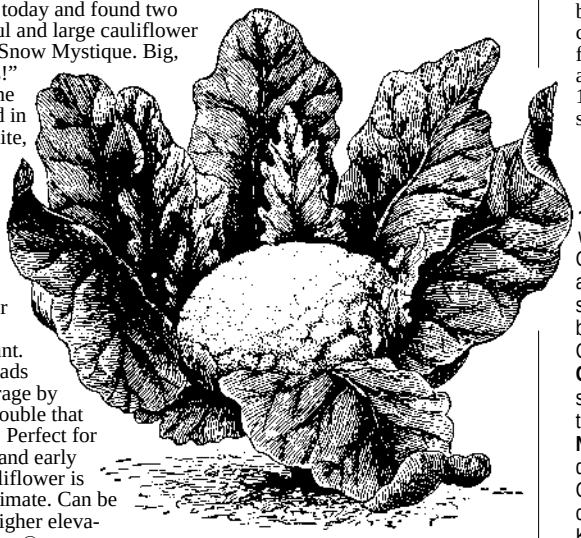
**A**=0.1g, $2.50 **B**=0.2g, $4.60 **C**=1g, $15.00 **D**=4g, $52.00
**E**=16g, $195.00 **K**=32g, $350.00

**Violet Queen** (80 days) F-1 hybrid. Upstaged by **3417** Graffiti and dropped by the supplier. *No longer available.*

**3425SB Snowbowl** (83 days) F-1 hybrid. No, not another college football bowl game, instead a pun on the old OP Snowball varieties, a huge improvement over all of them and likely national champion in the early-midseason class. Rated the best-flavored cauliflower in this year's or perhaps in any year's trials, "a real wowser" says Nikos. Delicate, chewable, tender, buttery, fine-textured and creamy cooked, report our tasters. Wrapper leaves extend upward, not out, contributing to the extra white color of these well-protected curds. Maturity is very uniform, all within a one-week window. For best quality, inspect your patch frequently and be prepared to harvest at the 5–6" stage when these dense dome-shaped 1½ lb heads remain very tight. Compact plant habit permits close 20–24" spacing for high yields and quick successions, a big plus for market growers. 22" tall. Have not tested for summer harvest but may be worth a small trial. ⑤ **NEW!**

**A**=0.5g, $2.40 **B**=1g, $4.20 **C**=4g, $16.00 **D**=14g, $46.00
**E**=28g, $85.00

**3428SM Snow Mystique** (93 days) F-1 hybrid. On Oct. 11 our trialer noted, "I went out today and found two absolutely beautiful and large cauliflower heads. They were Snow Mystique. Big, tight and gorgeous!" Mystique has all the attributes we loved in Cassius: clean, white, dense well-proportioned heads, the same good upright habit and the dome shape to ward off excess moisture plus a tender flavor not expected from such a massive plant. Massive it was, heads rated at 1.8 lb average by our supplier, but double that weight in our trial. Perfect for end of September and early October when cauliflower is at its best in our climate. Can be slow-growing in higher elevations and cold spots. ⑤



**A**=0.5g, $2.10 **B**=1g, $4.00 **C**=4g, $12.50 **D**=14g, $38.00

**3438CC Candid Charm** (95 days) F-1 hybrid. We have in the past bragged about the awesome 6–9 lb heads Candid Charm is sometimes capable of producing. More salient is its remarkable consistency in maturing marketable 4–5 lb snow-white curds within a 3–4 day window. These each fetch $5 at farmers market for Adam Tomash and June Zellers. Janine Welsby lauds Charm for producing beautiful tight white heads "even in marginal years." Adapted to fall production only. Easy to grow and not fussy then. ⑤

**A**=0.5g, $2.60 **B**=1g, $4.80 **C**=4g, $18.00 **D**=14g, $62.00
**E**=28g, $120.00

**3440SY Symphony** (96 days) F-1 hybrid. Immense heads, up to a foot across, look like they were injected with an apocryphal BGH—that's Brassica Growth Hormone. But we won't disqualify them from the Brassica Hall of Fame without proof! The classiest as well as the largest cauliflowers trialer Donna Dyrek ever grew, as tight as they were enormous, with no hollow stems. She raved about their sweetness and lack of brassica bite. Maybe we should just credit superior genetics. Dyrek started the seeds on May 30, transplanted them on July 8 and harvested Symphony the 2nd week of October 2007. Requiring a long season, Symphony is for fall harvest only. Donna, what's in that manure you use, anyway? All seed is held over; germs 92%. ⑥

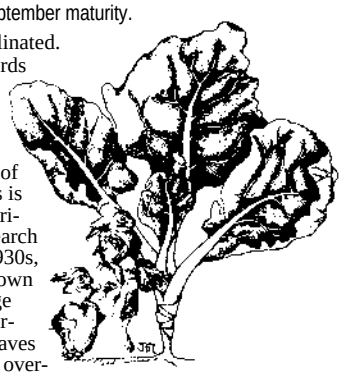
**A**=0.2g, $1.80 **B**=0.4g, $3.20 **C**=1g, $5.80 **D**=4g, $16.00
**E**=28g, $80.00

"Plenty of other sources available if I want to look at pretty pics. Do love the artwork, though."
–Kay Gustin, Troy, PA

## COLLARDS *B. o.* (acephala group)

To avoid flea beetles, plant in July for September maturity.

**3441VT Vates** (60 days) Open-pollinated. Because of their cold hardiness, collards were a miracle crop that sustained people in the South through the winters during the Great Depression. Any search for a Dr. Vates who bred the famous collard and kale varieties of this name would be to no avail. Vates is the acronym for Virginia Truck Experiment Station, a hotbed of collard research from 1907-1967. Introduced in the 1930s, this variety was probably the best-known of all the many developed there. Large upright 1½–2' plants give copious harvests of dark green thick crumpled leaves with a mild cabbage-like flavor. Will overwinter in high tunnels in our climate. ❄ ③ **NEW!**



**A**=2g, 90¢ **B**=4g, $1.50 **C**=14g, $2.60 **D**=28g, $4.00
**E**=112g, $5.50 **K**=448g, $14.00

**Champion** (61 days) Open-pollinated. *Not available this year.* We suggest **3441** above as a replacement.

**Cascade Glaze OG** (60 days) Open-pollinated. *Not available this year.*

**3444VC Variegated ECO** (61 days) Open-pollinated. Don't give up too soon! Appearances can be deceiving. The seedlings show no variegation. It doesn't appear until September. In my initial look at Donna Dyrek's trials one August its waxy leaves had taken on a sickly yellow-green hue. When I returned after the nights got nippy, the plants had transformed, developing beautiful white ribs for a dazzling display of contrasting color. Not just eye candy, they're also sweet and tender eating. Dyrek has been enjoying them for years. When fall comes around she throws the Champions to the animals and heads for Variegated. Florida family heirloom dating back to around 1910 was introduced 1999 by our friends at Southern Exposure. Still shows some variation. ②

**A**=2g, $2.00 **B**=4g, $3.80 **C**=14g, $12.50 **D**=28g, $24.00
**E**=112g, $80.00

## KALE

**~5,000-8,000 seeds/oz, 175-280 seeds/g.** Queen of greens? Kale is hot. Last year when we had a seed shortage we had a run on **3452** Redbor and **3453** Winterbor. On the bulletin board at the café at the Brattleboro Food Coop I found a poster asking "What's the Deal with Kale? Eat More Kale, Vermont's State motto can be seen plastered everywhere in Brattleboro, on cars and lampposts and on our beloved pets and children." (For a dissenting opinion see our description for **2392** Gilfeather turnip.)

**Culture:** Important in colder climates owing to its natural resistance to frost, kale is sweeter after being exposed to cold. To enjoy it at its best and to avoid the worst of the flea beetle season, direct seed in July or August for late-season maturity.

**Nutrition:** Rich in Vitamins A, C and K. Its high fiber helps lower cholesterol and decreases risk of heart disease. It contains eye-health compounds such as lutein. One cup provides more Vitamin C than a glass of orange juice, more calcium than a cup of milk, more potassium than a banana, and per calorie, more iron than beef. Kale may be used in textured flavorful salads, steamed as a side dish, mixed in omelettes, lasagna and stews and made into chips.

**History:** "Scientists say kale descends from wild cabbage, a plant found primarily on the lime cliffs of coastal Europe. Originating in Greece, kale was enjoyed for thousands of years throughout Europe where it was the most common green vegetable until cabbage became more popular in the Middle Ages."

## Curly Leaf KALE *B. o.* (acephala group)

**3450VO Vates Dwarf Blue Curled Scotch OG** (30 days baby, 56 days mature) Open-pollinated. The lengthy original name of this standard kale is usually shortened to Vates or Blue Scotch. The most commonly grown kale variety, it was introduced in 1950 by VTES (see **3441**) out of the pre-1865 heirloom variety Dwarf Green Curled. Dense frilly finely curled blue-green leaves on compact upright 12–16" plants stand well, maintain color and resist yellowing in cold and heat. Hardy and productive. Best as a fall crop, planted in July or early August. More variable than the hybrids. CCOF-certified. ❄ ③ **NEW!**

**A**=2g, $1.50 **B**=4g, $2.80 **C**=14g, $6.00 **D**=28g, $10.00
**E**=112g, $30.00 **K**=448g, $100.00

**Beedy's Camden OG** (60 days) Open-pollinated. *Alas, not available this year.* Will be back in 2016.

**3452RB Redbor** (60 days) F-1 hybrid. A spectacular all-red kale, highest rated in the OSU trials. Frilly ruffled leaves take on dramatic purple coloration in cool weather. A superb ornamental edible, gorgeous enough to make a terrific flower border or edge plant. Can be grown in summer but really comes into its own in fall. Quite cold hardy. Grows to 3'. For a rainbow-kale patch, interplant with White Russian, Red Russian, Winterbor and Nero di Tuscana. Compared to Red Russian kale, much less susceptible to flea beetles. ❄ ④

**A**=0.5g, $3.20 **B**=1g, $6.00 **C**=4g, $23.00 **D**=14g, $80.00
**E**=28g, $155.00

**3453WB Winterbor** (60 days) F-1 hybrid. Crinkly Winterbor was the most vigorous grower in each of our last three kale trials, showing the best cold hardiness and the richest blue-green color. Curled leaves are highly ruffled with good mild flavor, especially after they've been tickled by some of our frigid November nights. ❄ ④

**A**=0.5g, $2.20 **B**=1g, $4.00 **C**=4g, $12.00
**D**=14g, $40.00 **E**=28g, $72.00

**Rainbow Lacinato Gene Pool OG** (61 days) Frank Morton says no crop this year, but expects to have it again for 2016.

*Not available this year.*

## Siberian KALE
*B. napus* (pabularia group)

**3460FO Russian Frills** (55 days) Open-pollinated. A re-introduction of an almost-lost Oregon variety bred by Tim Peters. The folks at Adaptive Seeds discovered it being maintained by seedsman Peter Bauwens in Belgium. Similar to Red Russian when young, the purple and red-veined leaves get very frilly as they mature while remaining exceptionally tender. The dazzling frills upon frills upon frills make this 18–28" kale a great addition to kale bunches or mesclun mixes. With similar hardiness to **3464** White Russian, it makes a good tunnel plant. WA-certified. ❄ ① **NEW!**

**A**=2g, $1.60 **B**=4g, $3.00 **C**=14g, $6.50 **D**=28g, $10.00
**E**=112g, $32.00 **K**=448g, $115.00

**Red Russian** (60 days) Open-pollinated. Called Buda Kale by Fearing Burr in 1863, Ragged Jack by Vilmorin-Andrieux in 1885, and Communist Kale in 2006 by workers at Darthia Farm in Gouldsboro, ME. Russian traders brought this Siberian heirloom to Canada in the 19th century. It has undergone a rousing revival in recent years. Vigorous edible landscape plant a big hit for its unsurpassed tenderness and delicate flavor. Its oakleaf foliage colors after fall frosts. Use soon after picking, or chill leaves in cold water; otherwise wilts quickly. Red and purple veining changes to dark green when cooked. Tolerates outside temperatures of 14˚ double-covered under Agribon 19. ❄

**3461RC Red Russian** ③

**A**=2g, $1.00 **B**=4g, $1.60 **C**=14g, $3.20 **D**=28g, $4.50
**E**=112g, $8.50 **K**=448g, $30.00 **L**=5lb, $145.00

**3462RO Red Russian OG** CCOF-certified. ③

**A**=2g, $1.20 **B**=4g, $2.20 **C**=14g, $4.00 **D**=28g, $6.50
**E**=112g, $17.00 **K**=448g, $51.00 **L**=5lb, $245.00

**3464WO White Russian OG** (60 days) Open-pollinated. A flat-leaf Siberian type, silvery green with white veining. Similar to Red Russian, but a few inches taller, a third more productive, with larger, more serrated leaves. Also, much hardier than Red Russian, will hold into November without protection and thrive in an unheated greenhouse, even if temperatures go down to 0˚. Gene has harvested White Russian outdoors in Waterville out of the January snow. If season is extended, White Russian will produce new clusters of smaller tender secondary leaves from old axils. As with other Siberian kales, flavor gets sweeter with frost. OT-certified. ❄ Ω ①

**A**=2g, $1.60 **B**=4g, $3.00 **C**=14g, $8.00
**D**=28g, $12.00 **E**=112g, $35.00 **K**=448g, $120.00

## Dinosaur KALE *B. o.* (acephala group)

**3467CP Nero di Tuscana** or **Lacinato** (62 days) Open-pollinated. Also known as Cavolo Palmizio. Nero was described by Vilmorin-Andrieux in 1885 and traced back to the 18th century by William Woys Weaver who calls it "one of the most beautiful kales to grace any kitchen garden" and suggests interplanting with a vivid green lettuce for a spectacular color combination. Nero is elemental, a stripped-down version of kale shaped like a miniature palm tree about 18" high. Very dark green wrinkled strap-like leaves appear almost black at a distance, looking minimalist compared with the lush curly-leaved kales. Its tough leaf strength makes it very sturdy for distributing into CSA boxes. Delicious and nutritious as well as adapted to a wide temperature range, its sweet mild flavor improves after frost. According to Alan LePage, it demands more fertility than other kales. If it is looking anemic after the summer flea beetle invasions, LePage recommends side-dressing it with fertilizer or compost. Using this treatment, he's grown 6' plants! ②

**A**=2g, $1.40 **B**=4g, $2.60
**C**=14g, $5.50 **D**=28g, $10.00
**E**=112g, $26.00 **K**=448g, $72.00

## KALE MIX

**3469KM Kale Mix** (60-62 days) Maybe it's hard to pick just one or two kale varieties from so many tempting choices. Here's the solution: enjoy the whole medley of diverse colors, patterns and shapes for a mere buck seventy. "The kale mix is a new favorite," says Tim Brown of Rutledge, TN. Five years on the list; sales have increased each year.

**A**=2g, $1.70 **B**=4g, $3.20 **C**=14g, $8.50 **D**=28g, $15.00
**E**=112g, $52.00

## KOHLRABI *B. o.* (gongylodes group)

**~6,000 seeds/oz, 210 seeds/g** Don't like kohlrabi? Try harvesting it young when it tastes like a humble version of the globe artichoke. Its texture turns tough, woody and inedible if you wait too long.

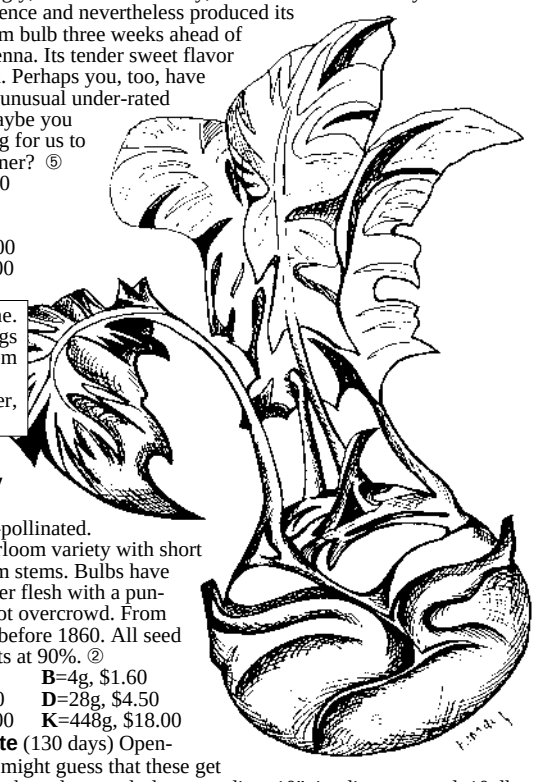
**3471KB Kolibri** (45 days) F-1 hybrid. The best purple kohlrabi we've found: quick growing, very uniform, purple on the outside, crisp and white on the inside, reliable, good-tasting and productive. An August planting will size up in October. Very hardy; will winter over with only snow cover for protection—in fact made it through the open winter of 2011-12 in Maine. Interplant with **3036** Bright Lights swiss chard for a dazzling display. ❄ ④

**A**=0.5g, $2.10 **B**=1g, $4.00 **C**=4g, $15.00 **D**=14g, $50.00
**E**=28g, $92.00

**3473WN Winner** (45 days) F-1 hybrid. Longtime customer Brian Cramer of Hutchins Farm in Concord, MA, convinced me to grow kohlrabi again for the first time in fifteen years. "Winner," he suggested, "has been my most successful kohlrabi for many years, always beating out others I have tried in consistency, quality and appearance." I grew Winner in 2012 and, in defiance of my shameful neglect, it proved to be everything Cramer said. Direct-seeded in late June into one of the worst droughts I can remember, irrigated sparingly, thinned belatedly, it even survived my two-week midsummer absence and nevertheless produced its lovely green stem bulb three weeks ahead of Early White Vienna. Its tender sweet flavor was a revelation. Perhaps you, too, have overlooked this unusual under-rated vegetable, or maybe you were just waiting for us to offer a real Winner? ⑤

**A**=0.5g, $1.60
**B**=1g, $2.60
**C**=4g, $6.60
**D**=14g, $18.00
**E**=28g, $32.00

"You have spoiled me. When other catalogs come I just throw them away."
–Emma May Hunter, Tellico Plains, TN



**3475WV Early White Vienna** (58 days) Open-pollinated. Early dwarf heirloom variety with short tops and medium stems. Bulbs have crisp white tender flesh with a pungent taste. Do not overcrowd. From Central Europe before 1860. All seed is held over; tests at 90%. ②

**A**=2g, 90¢ **B**=4g, $1.60
**C**=14g, $3.00 **D**=28g, $4.50
**E**=112g, $6.00 **K**=448g, $18.00

**3478GI Gigante** (130 days) Open-pollinated. You might guess that these get enormous. And they do, regularly exceeding 10" in diameter and 10 lb. Unlike other kohlrabi, this Czechoslovakian heirloom doesn't get woody even at such a large size. Gigante's crisp white mildly tangy flesh will add zest to your meals while you await the first edible greens of spring. Sow in spring for late fall harvest. Leaves sweeten like a tender kale after a few hard frosts in the fall and stems likewise become as delicious as their broccoli counterparts. A root cellar staple and a favorite of Jason Kafka who plants a 300' bed. ③

**A**=2g, $1.10 **B**=4g, $2.00 **C**=14g, $4.00 **D**=28g, $8.00
**E**=112g, $16.00 **K**=448g, $50.00

## RAAB

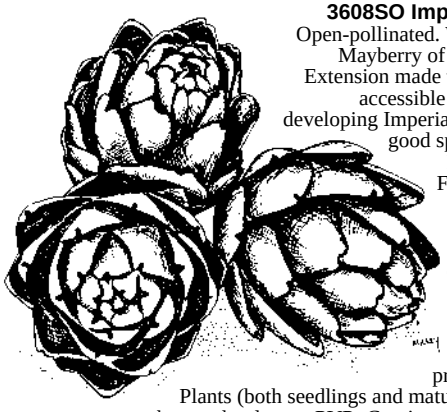
**3485QT Quarantina** (40 days) Open-pollinated. *B. rapa* (ruvo group) Also known as Rapini here and *Broccolo Asparago* in Italy, *Quarantina* means '40 days.' Raab is a non-heading version of broccoli with a more pungent flavor. Harvest young stems, leaves and small flower buds. Steam, stir-fry or add to salads. Many people try this as a spring crop with poor results. If the flea beatles don't get you, the summer heat will. Raab is much better as a fall crop. It will hold a lot longer and cool nights improve the flavor. Tender tips of young kale leaves make a better spring crop. ②

**A**=2g, $1.10 **B**=4g, $2.00 **C**=14g, $4.00 **D**=28g, $7.00
**E**=112g, $16.00 **K**=448g, $48.00

## GLOBE ARTICHOKE *Cynara scolymus*

**~20 seeds/g.**

**Culture:** Artichoke seed needs vernalization to trick it into thinking it has already gone through a season of growth. Start indoors in mid-February at warm temperatures (at least 60˚) avoiding direct hot sun or overwatering (misting is preferred). Transfer after 6 weeks to a cold frame when outdoor temperatures stay above 25˚. Keep as cool as possible over the next 6 weeks without going below 25˚. Set out with IRT plastic mulch (**9096**) and/or row covers (**9101**). Feed heavily and give lots of moisture and space (10 sq ft per plant). **Days to maturity are from date of transplanting, not seeding.**



**3608SO Imperial Star OG** (120 days) Open-pollinated. Wayne Schrader and Keith Mayberry of California Cooperative Extension made this delicious vegetable accessible to northern gardeners by developing Imperial Star in 1991. We've seen good specimens at Hidden Valley Farm in Alna and at Forest Farm in Harborside. Market gardener Alan LePage in Barre, VT, has gotten as many as eight fruits from a single plant. While that's unusual, most plants will bear more than one, producing in the cooler fall weather that they prefer to summer's full heat. Plants (both seedlings and mature) can tolerate light frosts but not hard ones. PVP. *Caution: May not ripen in northernmost areas.* AGRIOR-certified. ③

**A**=0.5g, $1.60 **B**=1g, $3.00 **C**=4g, $8.50 **D**=28g, $40.00

## CELERY & CELERIAC *Apium graveolens*

**0.2 gram packet ~500 seeds; 0.4 gram packet ~1000 seeds. 75,000 seeds per oz. All open-pollinated.**

**Culture:** Tender, must be started indoors in March, 10–12 weeks before setting out. Virginian Pam Dawling suggests that falling apple blossoms are a good phenological sign that transplanting time for these crops has arrived. Young seedlings grow slowly, requiring rich moist soil to survive. Regular rainfall or irrigation is necessary for good growth, flavor and yields. Celery withstands light fall frosts but gets kayoed by serious cold.

Minimum germination temperature 40˚, optimal range 59–70˚, ideal temperature 68˚ day, 59˚ night, needs fluctuating temperatures. Emergence takes 12 days at 59˚ and 7 days at 68˚. Only 40% normal seedlings at 59˚ compared to 97% at 68˚. **Days to maturity are from date of transplanting, not seeding.**

**Disease:** F = Fusarium

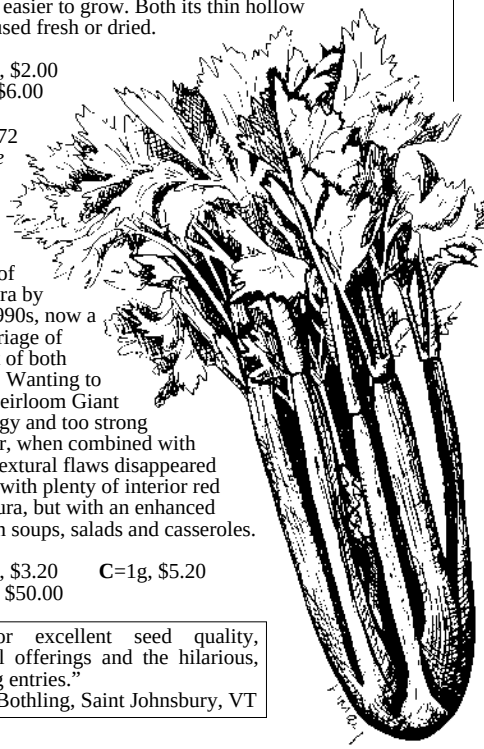
**3616AF Afina Cutting Celery** (60 days) Sturdy dark green foliage has rich aroma and taste, regenerates quickly after cutting. Imparts the same flavor to stews and soups as conventional celery. Although its culture is the same, it is much hardier and easier to grow. Both its thin hollow stems and its leaves can be used fresh or dried. Grows up to 30". ④

**A**=0.2g, $1.10 **B**=0.4g, $2.00
**C**=1g, $3.60 **D**=4g, $6.00
**E**=28g, $16.00

**Par-Cel Cutting Celery** (72 days) No crop. *Not available in 2015.*

**Ventura** (80 days) Alas, no crop. *Not available in 2015.*

**3630RO Redventure OG** (84 days) An inspired cross of Giant Red Celery and Ventura by Frank Morton in the early 1990s, now a stabilized cultivar. This marriage of opposites brings out the best of both partners and hides the flaws. Wanting to offer red celery, we trialed heirloom Giant Red but found it tough, stringy and too strong for modern palates. However, when combined with Ventura, the harshness and textural flaws disappeared into a delicious chewy stem with plenty of interior red color. Not as tender as Ventura, but with an enhanced flavor that will really enliven soups, salads and casseroles. OT-certified. Ω ①



**A**=0.2g, $1.70 **B**=0.4g, $3.20 **C**=1g, $5.20
**D**=4g, $10.00 **E**=28g, $50.00

"Thank you for excellent seed quality, delightful varietal offerings and the hilarious, thoughtful catalog entries."
–Heidi Meyer-Bothling, Saint Johnsbury, VT

**3634TO Tango OG** (90 days) The dance originated in South America but the celery is from Bejo in Holland. Adam Tomash and June Zellers, who year after year grow astounding celery, selected Tango as the star of one trial. Impressed with the variety's compact architecture and absence of punky centers, they grew unbelievably massive dense plants even in close spacing. They say Tango is almost as nice as Ventura with not quite as good disease resistance. Once you taste its smooth tender sweet nearly stringless stalks, you're going to want this dance. *Note: Under conditions of fast growth, high temperatures and moisture it may exhibit an harmless condition that mimics a bacterial wilt.* OT-certified. ④

**A**=0.1g, $2.90 **B**=0.2g, $5.60 **C**=0.4g, $11.00 **D**=2g, $35.00

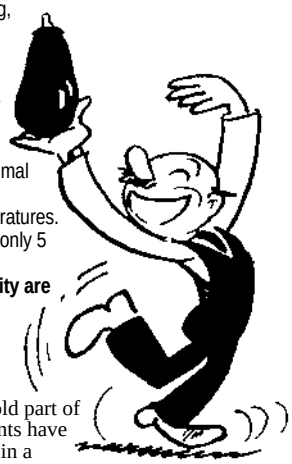
**3645BC Brilliant Celeriac** (100 days) *A. g.* var. *rapaceum* Celeriac, the frog prince of root vegetables, likes rainy years. A staple in central and eastern Europe recently embraced by chefs, gourmets and foodies in the States despite its ugly exterior. Even though it is not a celebrated part of Downeast cuisine, Jason Kafka plants a half acre, setting in 7,000 plants. Kafka considers it a good market crop that requires little maintenance and seldom is bothered by insects or wildlife. Since most of the root grows hidden below ground, Kafka enjoys the "gambler's thrill" of pulling them out at harvest time to see how they did. Its nutty parsley-celery flavor, improved by light fall frosts, enhances meat, fish and poultry. Great raw for winter slaws and salads, it may be boiled, mashed or braised. Brilliant is a classy early celeriac, high yielding with relatively smooth roots, clean white internal coloration and superb eating quality. An early start indoors is essential for good yields. Can be stored up to six months in moist sand in the root cellar. Kafka aims for softball-size, but anything at least tennis ball-size is marketable. ~2,240 seeds/g. ④

**A**=0.2g, $4.10 **B**=0.4g, $8.00
**C**=1g, $20.00 **D**=4g, $75.00
**E**=12g, $220.00

## EGGPLANT *Solanum melongena*

**0.2 gram packet ~48 seeds, 0.4 gram packet ~96 seeds.**

**Culture:** Despite some help from global warming, growing eggplant remains a challenge. We recommend raised beds, row covers (**9101**) and plastic (**9091**) or IRT mulch (**9096**). Our selections are the most reliable producers we've found. Even our skilled trialers get only sparse production of ripe fruits some seasons.



Minimum germination temperature is 60˚, optimal range 75–90˚, optimal temperature 85˚. Some varieties require fluctuating day and night temperatures. Emergence is 13 days at 68˚, 8 days at 77˚ and only 5 days at 86˚. Only 21% normal seedlings at 68˚, compared to 60% normal at 86˚. **Days to maturity are from date of transplanting, not seeding.**

**Pests:** See sidebar page 58 for information.

**Disease:** V = Verticillium

**3666SW Swallow** (51 days) F-1 hybrid. The one eggplant to grow if you live in a cold part of the world. "Incredibly, my Swallow eggplants have produced here at 60˚ N. latitude. They are in a cold frame on the south side of a greenhouse and have scrap foam under the soil/compost mix…I've had many delicious eggplant dishes—well worth the extra climate modifications," reports Sally Boisvert of Four Winds Farm, Haines, AK. For *early* production of glossy purple-black tender fruit of the elongated (1¾x7") Asian type without the bitterness often associated with larger eggplants. ⑤

**A**=0.2g, $2.10 **B**=0.4g, $3.80 **C**=1g, $8.00 **D**=4g, $26.00
**E**=28g, $120.00

**3673PL Pingtung Long** (58 days) F-1 hybrid. A long Chinese eggplant named for a town in Taiwan. Great for cooks who prefer to work with uniform slices. Vigorous stress-tolerant plants start producing early for a decent overall yield. Its light purple color is especially attractive if it is harvested before full maturity. As it approaches its full 11", its skin darkens but retains a pleasing sheen. Its sweetness will keep you coming back for more. ③

**A**=0.2g, $1.20 **B**=0.4g, $2.20 **C**=1g, $3.60 **D**=4g, $6.00
**E**=28g, $18.00

**3677GA Galine** (72 days) F-1 hybrid. A classic early bell-shaped Italian-style eggplant that sets fruit and produces early and dependably in the North. Adam Tomash and June Zellers rated it the earliest in their trials, and almost on a par with **3691** Rosa Bianca, their favorite, for flavor. "Mild with a pudding-like texture when cooked," they report. Plus it had larger fruit, averaging about 1 lb each, and was less fussy than Rosa. ⑤

**A**=0.2g, $2.10 **B**=0.4g, $3.80 **C**=1g, $6.60 **D**=4g, $19.00
**E**=28g, $110.00

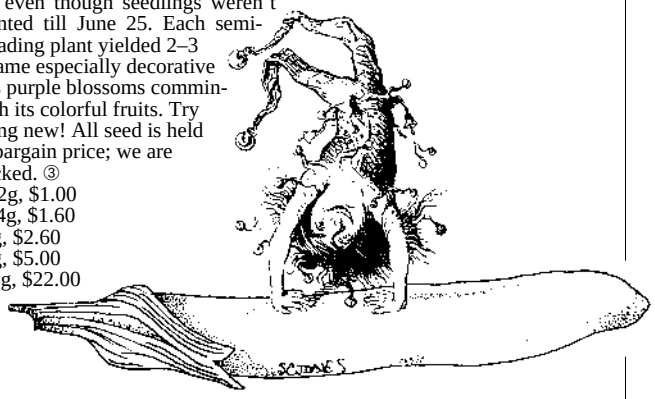
## EGGPLANT continued

**3680AO Applegreen OG** (74 days) Open-pollinated. Developed in 1964 for short-season areas by legendary University of New Hampshire plant breeder Elwyn Meader. Chinese Red (*S. integrifolium)* is in the parentage. This rounded 6x4½" light apple-green eggplant is fairly early and productive, though was slow to ripen in the wet 2013 season. Fruits average 8 oz. Our tasters rated it the "sweetest green variety" and noted its nice texture and good flesh-skin ratio. Non-bitter, tender and flavorful mild white flesh. QCS-certified. ①

**A**=0.2g, $1.80 **B**=0.4g, $3.20 **C**=1g, $7.00 **D**=4g, $16.00 **E**=28g, $90.00

**3681LG Lucky Green** (75 days) F-1 hybrid. We didn't strike it lucky as customers passed over this new variety in droves. Maybe our description was inadequate or perhaps we need to appeal to your sense of adventure. Here's amends: Our tasters loved these skinny elongated slightly curved kelly-green fruits. One extolled "sweet flavor, good texture, good skin not too thick in the mouth. Yum!" Another praised its sweetness and lack of bitterness. Our trialer said they had the best texture of any in her trial, a pleasing chewy skin with an engaging sweetness. Fruits, averaging 200g began ripening in Zone 4 Hartland, ME, on Sept. 1 and were still coming on Oct. 16 even though seedlings weren't transplanted till June 25. Each semi-tall spreading plant yielded 2–3 and became especially decorative when its purple blossoms commingled with its colorful fruits. Try something new! All seed is held over at bargain price; we are overstocked. ③

**A**=0.2g, $1.00
**B**=0.4g, $1.60
**C**=1g, $2.60
**D**=4g, $5.00
**E**=28g, $22.00

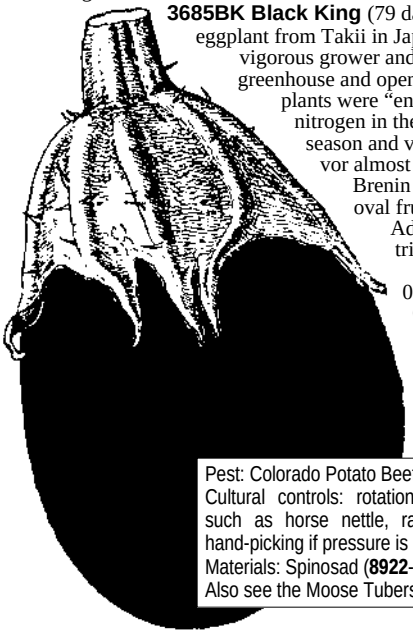


**3682PW Pure White** (75 days) F-1 hybrid. Asian eggplant features beautiful elongated cylindrical curved 12x1½" off-white fruits that go a long way. The most productive variety in our 2013 trial averaged 4 per plant, with significant ripening around Sept. 4 and 70% maturity before frost. Our trialers noted its "creamy nice texture," "good mild flavor," with "slight non-bitter aftertaste," "moderately chewy skin" and sweetness. One observed that its sharper-than-expected flavor sweetens when it is fried. ③

**A**=0.2g, $1.10 **B**=0.4g, $1.80 **C**=1g, $2.80 **D**=4g, $5.50 **E**=28g, $22.00

**3684DO Diamond** (78 days) Open-pollinated. Kent Whealy brought this elongated slightly tapered dark purple eggplant back from the Ukraine in 1993. 2' plants set 2½x7" slender 12 oz fruits in clusters. Firm flesh has good texture and entirely lacks that bitter eggplant taste. Because of its mild flavor and good cold-climate adaptation, Diamond is growing in popularity. Our trialer in Maine had an avg yield of 4 lb per plant. CO-certified. ①

**A**=0.2g, $1.60 **B**=0.4g, $2.80 **C**=1g, $4.00 **D**=4g, $7.50 **E**=28g, $40.00



**3685BK Black King** (79 days) F-1 hybrid. A fine hybrid eggplant from Takii in Japan good for the main crop. A vigorous grower and high yielder suitable for both greenhouse and open-field cultivation. Black King plants were "enormous for the low amount of nitrogen in their bed: waist high early in the season and very productive…liked the flavor almost as much as Applegreen," said Brenin Wertz-Roth. 7" shiny bulging oval fruits outperformed Diamond in Adam Tomash and June Zellers' trial. Their two King plants produced 11 ripe fruit averaging 0.9 lb. Resistant to excess heat. One grower found susceptible to V. ⑤

**A**=0.2g, $1.80
**B**=0.4g, $3.20
**C**=1g, $4.50
**D**=4g, $15.00
**E**=28g, $55.00

Pest: Colorado Potato Beetle
Cultural controls: rotation, control solanaceous weeds such as horse nettle, rapid flaming, suction devices, hand-picking if pressure is low, mulch before adults arrive.
Materials: Spinosad (**8922-4**)
Also see the Moose Tubers section, page 119.

**3688RO Rosita OG** (84 days) Open-pollinated. A truly sublime eggplant, Rosita is early, productive and tasty without a hint of bitterness. These pear-shaped pink-lavender fruits with white shoulders are 6–8" long and 4–6" wide and will stand up in any Solanum beauty contest. Heirloom Rosita, brought to the States from Puerto Rico in 1979, has gained a steady following. Enjoy its sweet delicious tender white flesh. QCS-certified. ②

**A**=0.2g, $1.80 **B**=0.4g, $3.20 **C**=1g, $4.50 **D**=4g, $15.00 **E**=28g, $55.00

**3691BO Rosa Bianca OG** (88 days) Open-pollinated bicolor Italian heirloom. Alan LePage calls it "the best eggplant in the universe," with a creamy consistency and delicate flavor. "Head and shoulders above the rest," chimes in Tomash, "like eggplant pudding." Gorgeous fruits, white with lavender streaking down the side, can command a premium in gourmet markets. Rosa is plump, about 3–4" across and 5" long, narrow at the top and widening with indentations almost like folds in draped fabric. Fruits average 2 lb, max out at 4 lb, LePage's highest-yielding eggplant. Rosa needs to be coddled, particularly in the northern half of New England. Seed needs alternating temperatures to break dormancy: warm days (preferably 80s), cooler nights (around 70˚). *Note:* If your Rosa Bianca was not true to type last season, please write for a refund or replacement. CCOF-certified. ③

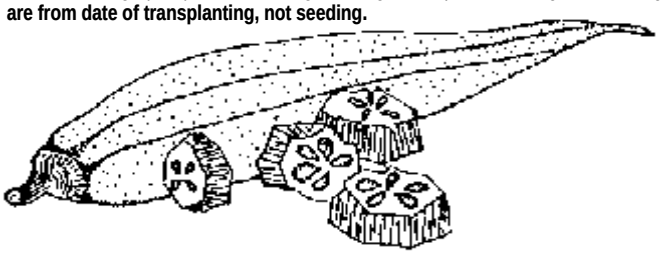
**A**=0.2g, $1.30 **B**=0.4g, $2.20 **C**=1g, $3.60 **D**=4g, $6.00 **E**=28g, $24.00

## OKRA *Abelmoschus esculentus*

**2 gram packet contains about ~30 seeds.** A staple down South, little known in Maine. Most demand in immigrant neighborhoods in Portland and Lewiston. High in vitamin C and B vitamins and rich in soluble fibers.

**Culture:** State legislator Craig Hickman of Annabessacook Farm in Winthrop, who grows 400 plants per year, says Okra requires TLC, balanced nutritious soil with good pH, and not much competition from weeds. According to one of his veteran fieldhands, "Okra is a diva…that needs hot weather for about 60 days." It may be direct seeded or started indoors in peat pots and transplanted in 4–5 weeks, after all danger of frost has passed. Transplant 1' apart; do not disturb roots. Once it flowers, the fleshy pods will be ready for harvest in two days. They are best when picked young and tender, no longer than 4". Longer pods are really fibrous.

Minimum germination temperature 60˚, optimal range 70–90˚, optimal temperature 80˚. Emergence is 13 days at 77˚ and only 7 days at 86˚, but highest proportion of normal seedlings (92%) is at 77˚, falling off at higher temperatures. **Days to maturity are from date of transplanting, not seeding.**



**3695JO Cajun Jewel OG** (65 days) Open-pollinated. A bayou favorite since the 1950s, Cajun Jewel adapts well to our cooler climate and produces almost as much as hybrid Cajun Delight. Dwarf spineless 3–4' plants yield relatively early 1x7" pods with good flavor. Southern Exposure Seed Exchange, who introduced this Jewel to commerce in 1989, produced our seed. QCS-certified. ②

**A**=2g, $1.20 **B**=4g, $2.20 **C**=28g, $8.00 **D**=112g, $23.00 **E**=448g, $85.00

**3697GO Red Burgundy OG** (75 days) Open-pollinated. This dual-purpose cultivar is a stunning ornamental as well as a culinary delight. Most productive in the south, Red Burgundy is hardy enough to generate at least a few pods here. Slender pods will grow 6–7" but are best harvested at 4" for optimal texture and flavor. Our trialer Relentless says they "taste as good as any green okra." Later and not as productive here as Cajun Jewel, but an absolute stunner with its green leaves and burgundy ribs, stems and pods. Bred by Leon Robbins at Clemson University. CCOF-certified. ③

**A**=2g, $1.00 **B**=4g, $1.80 **C**=28g, $4.50 **D**=112g, $12.00

**3699BO Beck's Big Buck OG** (85 days) Open-pollinated. When Malcolm and Delphine Beck bought their farm in 1968 in Comal County, TX, they found in the abandoned garden giant okra stalks with the fattest pods they'd ever seen. When they saved and replanted the seed it grew big fluted remarkably tender delicious green pods in abundance on sturdy plants. They called it the snapping okra because it snaps so easily off the plants when it is ready to harvest. Though not adapted to our climate, Beck's will produce even in Central Maine in an average growing season. Of course, it will do much better farther south. QCS-certified. ①②

**A**=2g, $1.20 **B**=4g, $2.20 **C**=28g, $8.00 **D**=112g, $28.00

**Supplier Codes** Know where your seed comes from! See page 5 for details.
① Small seed farmers including Fedco staff.
② Family-owned companies or cooperatives, domestic and foreign.
③ Domestic and foreign corporations not part of a larger conglomerate.
④ Multinationals not to our knowledge engaged in genetic engineering.
⑤ Multinationals who are engaged in genetic engineering.
⑥ Manufacturers of neonicotinoids: Bayer and Syngenta.

# PEPPERS *Capsicum annuum*

**~160 seeds/g.** Capsicum comes from the Greek *kapto* which means 'bite.'

**Seed-saving tips:** Harvest only the first fruits for seed, allowing only three or four fruits per plant to grow and removing all others. Fewer fruits = larger seeds = greater seed viability. Later fruits often have germination rates of only 60%.

**Culture:** Very tender, will not tolerate frost, dislike wind, will not set fruit in cold or extremely hot temperatures or in drought conditions. Start indoors in March or April. Set out in June. Black plastic highly recommended. Row cover improves fruit set in windy spots. Pick first green peppers when they reach full size to increase total yield significantly. Green peppers, though edible, are not ripe. Peppers ripen to red, yellow, orange, etc.

Minimum germination soil temperature 60˚, optimal range 68-95˚, optimal temperature 80˚. Emergence is 13 days at 68˚, only 8 days at 77 or 86˚. 70% normal seedlings at 59˚ increases to 98% at 77˚.

**For all peppers, days to full-color maturity are from transplanting date.**

**Diseases:**

| | |
|---|---|
| BLS | Bacterial Leaf Spot |
| CMV | Cucumber Mosaic Virus |
| TMV | Tobacco Mosaic Virus |

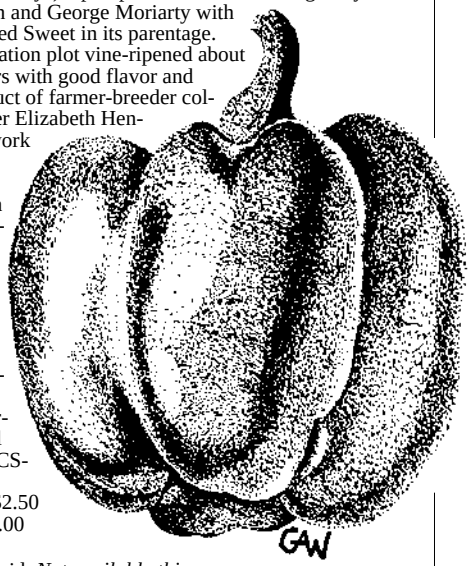
## SWEET PEPPERS

### SWEET BELLS

**3701AC New Ace** (60 days) F-1 hybrid. A cinch to grow in the North. Though I am by no means a pepper pro, I counted 54 full-size and 12 baby peppers on my 11 plants on Sept. 8, an illustration of its potential in a good pepper year. Resists blossom drop even in adverse weather so that almost every flower produces. Fruits thin-walled, not blocky, turn red early, good for the home garden. New Ace is an improvement on the old strain, producing fewer misshapen pointy peppers, but still not a majority of classic blocky 4-lobed commercial peppers. Janine Welsby responds, "Don't damn them with faint praise! Still the only pepper that consistently ripens gorgeous red bells for us. Maybe they are kind of misshapen but the taste makes up for it." ⑤

**A**=0.2g, $1.70 **B**=0.4g, $3.20 **C**=1g, $6.00 **D**=2g, $10.50
**E**=4g, $20.00 **K**=14g, $60.00

**3704PO Peacework OG** (65 days) Open-pollinated. An exciting early red bell pepper bred by Molly Jahn and George Moriarty with King of the North and Early Red Sweet in its parentage. Each small plant in our observation plot vine-ripened about 6 medium-thick-walled peppers with good flavor and full-bodied sweetness. A product of farmer-breeder collaboration starring CSA-grower Elizabeth Henderson and her team at Peacework Farm in cooperation with the Organic Seed Partnership, the California Pepper Commission and university breeders, Peacework is a stabilized open-pollinated variety. Seed from this variety is sold under license and a portion of the proceeds go to support public vegetable breeding at Cornell University. This improved production has better leaf cover than in the past and looked gorgeous in the field this year. All seed is held over. ☘2008. QCS-certified. ①



**A**=0.2g, $1.50 **B**=0.4g, $2.50
**C**=1g, $4.50 **D**=2g, $8.00
**E**=4g, $15.00

**Gilboa OG** (66 days) F-1 hybrid. *Not available this year.* Check our website for possible spring availability.

**3710LB Lady Bell** (68 days) F-1 hybrid. An early elongated bell that looked good in our trials as a replacement for North Star. 3- to 4-lobed fruits ripen from rich green to attractive bright red. A good producer of 3x5" bells, juicy and sweet with a hint of spiciness. Even in cool conditions, each plant sets 3–8 fruits. Developed by Harris. All seed is held over. ⑤

**A**=0.1g, $1.90 **B**=0.2g, $3.60 **C**=0.4g, $6.00 **D**=1g, $12.50
**E**=2g, $22.00 **K**=8g, $62.00

**3713NO King of the North OG** (70 days) Open-pollinated. Back in the late '80s when Seed Savers Exchange co-founder Kent Whealy keynoted at the Common Ground Fair we asked him to suggest a pepper that would ripen in the North. His suggestion was King and it has been our most popular open-pollinated bell ever since. A good choice for those who want early marketable blocky peppers. Prone to blossom-drop in heat. CO-certified. ①

**A**=0.2g, $1.30 **B**=0.4g, $2.20 **C**=1g, $3.30 **D**=2g, $5.60
**E**=4g, $10.00

**3716RV Revolution** (72 days) F-1 hybrid. "We may have to stop growing other green-to-red bells, as Revolution makes them look puny and we can't put them in the same basket and sell them for the same price," reported Deborah Jaffe. Turned red in early October for Donna Dyrek. Juicy and delicious, it boasts the stoutest square walls imaginable. Superb yields of "nice hefty thick-walled fruits," says Jason Kafka, some in excess of l lb. Elaine Carlson relates, "I finally had success growing good sweet peppers 12–14 oz each thanks to Kafka's recommendation. No more thin-walled peppers for me." Resists BLS, tolerant to CMV. ⑤

**A**=0.1g, $2.50 **B**=0.2g, $4.80 **C**=0.4g, $9.00 **D**=1g, $20.00
**E**=2g, $38.00 **K**=8g, $140.00

**3718GS Golden Star** (72 days) F-1 hybrid. With its large 4-lobed 4" glossy thick-walled blocky yellow peppers, this new Star fills a gap in our selection admirably, a prolific colored Cal Wonder–type adapted to the North, even though bred in Israel. On Sept. 26 one plant sported 7 fruits, and another, 10. Our trialer describes them as "nice, sweet and crispy." Plants boast generous leaf canopies. Ripened in Zone 4 Hartland, ME, around the first of September. ③

**A**=0.1g, $1.40 **B**=0.2g, $2.50 **C**=0.4g, $3.60 **D**=1g, $5.50
**E**=2g, $8.50 **K**=8g, $26.00

**3723PO Purple Beauty OG** (74 days) Open-pollinated. Produces a good yield of blocky 3x3" fruits that ripen from purple to green to deep red as they mature. Aptly named, the fruits are incredibly striking in the purple stage. They taste like other crisp green bells, but sell much better even at a premium price. Purple peppers reveal green interiors when sliced, and turn green in their entirety when cooked. "Super early and they're huge," says Holli Cederholm. Trialers noted that this organic production was loaded with peppers while the plants from conventionally grown seed were not. Grows 18–20". ID-certified. ①

**A**=0.5g, $1.20 **B**=1g, $2.20 **C**=2g, $3.40 **D**=4g, $5.50
**E**=28g, $20.00

**3725SO Staddon's Select OG** (74 days) Open-pollinated. Worthy of consideration except in the very cold climates where it is poorly adapted. This good large blocky market-type pepper makes early production of good-sized glossy dark green 3–4 lobed peppers on tall bushy plants, even in adverse conditions. WA-certified. ① **BACK!**

**A**=0.2g, $1.30 **B**=0.4g, $2.20 **C**=1g, $3.30 **D**=2g, $5.60
**E**=4g, $10.00

**3729FB Flavorburst** (75 days) F-1 hybrid. Citrus flavor comes to the world of sweet peppers! A Burpee taste-test winner, the 4–6" blocky bells begin the color of Granny Smith apples and ripen to a lovely shade of goldenrod. Thick-walled, crisp and juicy, the expected peppery bite overlaid with a zesty surge of lemon. Great appetizers, salad enhancers or stuffers. Tends to wedge its fruits into the stems of the plants making it hard to harvest quickly without damaging the plant. ④

**A**=0.1g, $2.20 **B**=0.2g, $4.20 **C**=0.4g, $7.80 **D**=1g, $17.50
**E**=2g, $32.00 **K**=8g, $100.00

**3735CO Chocolate OG** (80 days) Open-pollinated. Our warehouse crew is indiscriminate and voracious when it comes to chocolate. But our trial evaluators were much more circumspect, rejecting various strains of chocolate peppers as far too unproductive until we found this chocolate. Our seed grower reports every plant has at least a dozen fruits, some 20 or 30, so that sometimes plants fall over! 4–6" tapered fruits turn from green to glossy brown. The thick-walled flesh (burgundy-red inside, chocolate outside) has the taste we sought for so long. MOFGA, OT-certified. ①

**A**=0.2g, $1.80 **B**=0.4g, $3.30 **C**=1g, $6.00 **D**=2g, $10.00
**E**=4g, $18.00

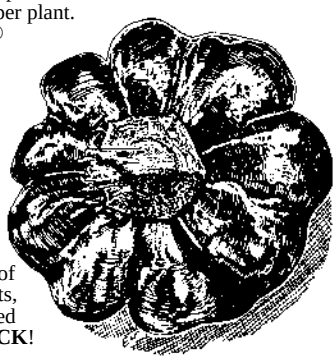
### CHEESES & PIMIENTOS

**Klari Baby Cheese OG** (65 days) *Not available in 2015.*

**3740SP Sweet Pimiento ECO** (80 days) Open-pollinated. We selected Sweet Pimiento as a close substitute in a year when we could not get seed for **3741** Amish Pimiento. Later, in our lot grow out, we found it matured significantly earlier and deserved its own spot in the catalog. Perhaps the provenance of this seed grown in the North Carolina mountains boosts its cold-climate adaptation. Early and productive with an enjoyable rich fruity taste. I harvested several of these red pimientos in a difficult season. More skilled growers report 15–20 peppers per plant. Early and prolific even in bad years. ①

**A**=0.2g, $1.40 **B**=0.4g, $2.50
**C**=1g, $4.00 **D**=2g, $6.20
**E**=4g, $11.00

**3741PO Amish Pimiento OG** (85 days) Open-pollinated. Pimientos are the sweetest of all peppers—my favorites for eating out of hand. The problem with growing seed for Amish Pimiento is that you have to restrain yourself from eating the seed crop. Blame it on the rich sweet fruity taste of these 2x4" squat ribbed fleshy red fruits, productive and fairly early, thick-walled and crunchy. OEFFA-certified. ① **BACK**!



**A**=0.2g, $1.40 **B**=0.4g, $2.50
**C**=1g, $4.00 **D**=2g, $6.20 **E**=4g, $11.00

**Tangerine Pimiento OG** (85 days) Off-types in the production; *not available in 2015.*

## ELONGATED PICKLERS, FRYERS & ROASTERS

**3752BS Superette Sweet Banana** (65 days) F-1 hybrid. This is no chiquita pepper, being quite long at 5–8", early, sweet, continuously setting and productive. Roughly the shape and color of a banana, but slightly curved and shinier yellow. Maybe even as sweet as bananas at perfect ripeness, great for eating out of hand or pickling. May display some genetic variability. ②

**A**=0.1g, $1.90 **B**=0.2g, $3.60 **C**=0.4g, $6.00 **D**=1g, $12.50
**E**=2g, $21.00 **K**=8g, $66.00

**3757CO Carmen OG** (70 days) F-1 hybrid. Johnny's Carmen debuted in 2006 to much critical acclaim, including a coveted AAS. We wouldn't be shocked if the pepper were still grown as widely in 140 years as Bizet's 1875 opera *Carmen* is performed now. A classic Italian Corno di Toro type, Carmen features unusually sweet horn-shaped tapered pointed 2½x6" fruits avg 5 oz. Great for salads and roasting, especially as they ripen from green to deep carmine, with good sweet flavor. Upright medium-sized plants with excellent protective canopy. Widely adapted and early maturing in its class. Bizet's Carmen was a beautiful gypsy with a fiery temper responsible for the downfall of many men. Rob and Janika's Carmen is equally tempting, though with much more salutary results. MOFGA-certified. ③

**A**=0.1g, $2.50 **B**=0.2g, $4.80 **C**=0.4g, $9.00 **D**=1g, $20.00
**E**=2g, $38.00 **K**=8g, $130.00

**3759BO Boldog Hungarian Spice Paprika OG** (71 days) Open-pollinated. The Boldog from Hungary that doesn't bite but does dry nicely with a hint of spiciness. A prolific bearer of 4–6" long wrinkled tapered pendant fruits. Pick red and grind into sweet paprika, string into decorative ristras or enjoy fresh. Boldog sets enough fruit to accommodate all three uses. The town of Boldog is in a well-known spice-pepper district northeast of Budapest. WA-certified. ①

**A**=0.2g, $1.40 **B**=0.4g, $2.50 **C**=1g, $3.80 **D**=2g, $6.20
**E**=4g, $12.00

**3762JO Jimmy Nardello's** (76 days) Open-pollinated. This thin-walled 8" frying pepper has won many converts. The long curved tapering pointed fruits turn deep red with shiny wrinkled skin when ripe. Pleasing sweet mild flavor, good raw, in stir-fries and, especially, fried. According to Nardello family relative Patty Ruprecht of Pownal, ME, "the *only* way to eat them is to string them, dry them, fry them and salt them." Eat them plain or "better still as a sandwich on Italian bread with a slice of provolone." Listed on Slow Food's Ark of Taste. Brought to Connecticut from the village of Ruoti in the Basilicata region of southern Italy in 1887 by Jimmy Nardello's mother. OT-certified. ①

**A**=0.2g, $1.80 **B**=0.4g, $3.30 **C**=1g, $6.00 **D**=2g, $10.00
**E**=4g, $18.00

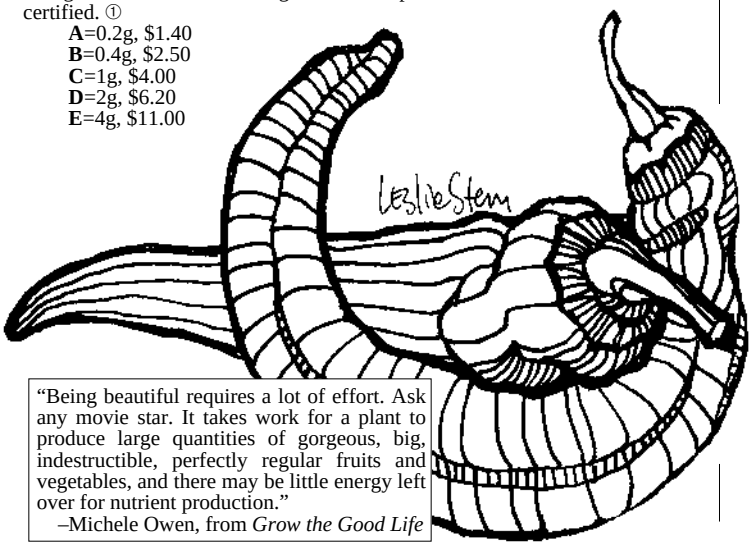
**3766CU Cubanelle** (80 days) Open-pollinated. Our customers asked for this semi-sweet frying pepper. 6x2" waxy yellow-green fruits turn red. Not pungent. "Hands down our biggest fruit producer of all pepper varieties for many years now," reports Anne Elder. ②

**A**=0.5g, 90¢ **B**=1g, $1.60 **C**=2g, $2.50 **D**=4g, $4.00
**E**=28g, $6.00

**Odessa Market** (87 days) No crop this year. *Not available in 2015.*

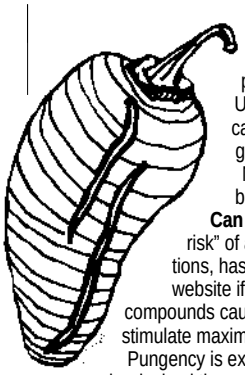
**3776FO Feherozon OG** (90 days) Open-pollinated Hungarian heirloom. My first introduction to this extraordinary pepper was in a jar…dried and ground to a wonderfully sweet paprika. I was intrigued. The field reports didn't even consider this aspect, instead extolling Feherozon for incredible productivity: up to two dozen 3x4½" pointed light yellow fruits per plant. One trialer fed her entire neighborhood with these sweet juicy and flavorful peppers. Any not eaten fresh will eventually turn red and can be dried for a delicious paprika. The beauty of this pepper as it turns is noteworthy. Beginning with the faintest red overtones blending into its yellow background, the red blush grows more pronounced as it matures. ID-certified. ①

**A**=0.2g, $1.40
**B**=0.4g, $2.50
**C**=1g, $4.00
**D**=2g, $6.20
**E**=4g, $11.00




"Being beautiful requires a lot of effort. Ask any movie star. It takes work for a plant to produce large quantities of gorgeous, big, indestructible, perfectly regular fruits and vegetables, and there may be little energy left over for nutrient production."
–Michele Owen, from *Grow the Good Life*

## HOT PEPPERS



Chiles have been consumed in Mexico for more than 5,000 years. The Aztecs had at least seven different words for hot peppers and the Incas used them as a form of currency. In the U.S. hot peppers have increased dramatically in popularity. Per capita consumption of chiles now exceeds that of peas, asparagus and cauliflower. 25% of the U.S. chiles are grown in Hatch, NM, the self-proclaimed Chile Capital of the world, which celebrates an annual chile festival each Labor Day weekend.

**Can you take the heat?** Hot pepper eaters enjoy the "constrained risk" of a pleasant thrill which, unlike alcohol, tobacco or coffee addictions, has only a short-term effect and is not health-threatening. A great website if you like your peppers hot is www.usHOTstuff.com. Capsaicin compounds cause most of the heat in peppers. Warm nighttime temperatures stimulate maximum development of capsaicins and increase pungency levels. Pungency is expressed in Scoville units, after Wilbur Scoville, an Englishman who devised the method used for eighty years to measure the heat in peppers.

Some Scoville ratings for general categories are: sweet bell, Banana and Pimiento peppers 0, Ancho & Poblano 1–2k, Anaheim 0.5–2.5k, Bulgarian Carrot 2.5k, Jalapeño 2.5–8k, Chipotle 5–8k, Long thick Cayenne 6–8.5k, Hot Wax 5–9k, Serrano 8–22k, Aji & Cayenne 30–50k, Super Chili 40–50k, Thai 50–100k, Orange Habanero/Scotch Bonnet 150–325k, commercially available pepper spray for self-defense 2–3M, police-grade spray 5.3M, capsaicin 15–16M.

The world's hottest pepper? That would be the Carolina Reaper, bred by Smokin' Ed Currie of Fort Mill, SC, and grown by the PuckerButt Pepper Co. The bumpy oily fire engine–red fruits rate 1,569,300 Scoville Units.

If you overdose on hot peppers, milk is almost twice as effective as water in banking the flames, and bread, rice or tortillas are even better. Handle hot peppers with caution; capsaicin is highly alkaloid and can burn skin.

**Hot peppers are arranged here from the least to the most hot as measured in Scoville units.**

**3804BD Beaver Dam** (80 days) Open-pollinated. Early for its size and a heavy producer in normal years, sets several pendulous shiny horn-shaped 6" red-orange fruits per plant, 3" wide at the shoulders, tapering to a blunt point. Both sweet and with heat. Most of its mild spice is in its seeds and ribs so you can excise those if you wish. Or leave them in to enjoy its nice peppery flavor. Heirloom brought to Beaver Dam, WI, in 1912 by the Joe Hussli family. 500–1,000 Scovilles. ①

**A**=0.2g, $1.40 **B**=0.4g, $2.50
**C**=1g, $4.00 **D**=2g, $6.20 **E**=4g, $11.00

**3807AN Anaheim** (78 days) Open-pollinated. Also known as California Chile and Chile Verde. Cultivated for canning in a factory near Anaheim around 1900. Anaheim is the pepper typically used for chiles rellenos. 7" long fruits tapering to a point turn from dark green to red at maturity. Pungent, but not particularly hot. 900–2,500 Scovilles. ②

**A**=0.5g, 90¢ **B**=1g, $1.60 **C**=2g, $2.60 **D**=4g, $4.00
**E**=28g, $7.50

**3811TB Tiburon Ancho/Poblano** (65 days green, 85 days red ripe) F-1 hybrid. There is no evidence that this pepper originated in Tiburon, nor does it have the bite that these associations conjure (*Tiburon* is Spanish for shark.) These relatively mild hot peppers, known as Poblano when green and Ancho when dried, are used for roasting, for making chile powder and sauces, especially the classic *mole*. Also suitable for stuffing. An extremely productive selection for northern market growers or home gardeners serious about having plenty of peppers for table and processing. Large uniform glossy dark green 3-lobed horn-shaped fruits (3½–5" long x 2½" wide) mature to a deep brick red on sturdy bushy 3' plants that resist lodging and keep the heavy fruit set off the ground. The flesh is thick and mildly hot with that mouth-watering distinctive Poblano flavor, sweet and savory. Won instant popularity with our customers. 2,000 Scoville units. Resistant to BLS and TMV. ⑤

**A**=0.2g, $1.80 **B**=0.4g, $3.40 **C**=1g, $6.00 **D**=2g, $10.50
**E**=4g, $19.00 **K**=14g, $59.00

**3816BO Czech Black OG** (65 days) Open-pollinated. Fruits so striking that seed grower Roberta Bailey kept a bowl on her table just to admire. Black when immature, the 2½" long conical peppers ripen to a lustrous garnet. Mild juicy flesh runs with a cherry red juice when cut. The heat, a tad less than a jalapeño's, is in the ribs and seeds and is "just right for many of us," says one customer. 2½–3' bushes bear very early, setting about 20 pointed thick-walled peppers per plant. All seed is held over. 2,000–5,000 Scovilles. MOFGA-certified. ①

**A**=0.2g, $1.80 **B**=0.4g, $3.40 **C**=1g, $6.00 **D**=2g, $10.50
**E**=4g, $17.00

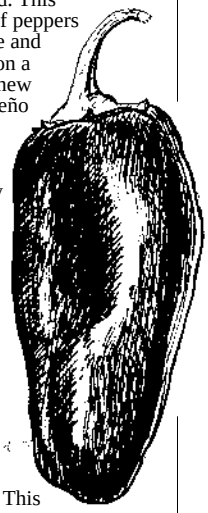
**3819FB Fireball** (75 days) F-1 hybrid. Despite NSA spying, this form of incendiary device is still legal and sought out. Our first cherry-type hot pepper, Fireball, like the candy of the same name, turns the inside of your mouth red. Its initial impression of sweetness is swiftly followed by an expression of searing heat. Small strawberry-shaped fruits turn from shiny green to blazing red, mirroring the fire within. Donna's first ripened Sept. 1; additional fruits matured slowly. In mid-October her plants were still covered with peppers. 2,500–5,000 Scovilles. All seed is held over. This lot tested negative both for TMV and BLS. Resists TMV. ②

**A**=0.1g, $2.40 **B**=0.2g, $4.50 **C**=0.4g, $8.50 **D**=1g, $19.00 **E**=2g, $35.00 **K**=8g, $125.00

**3821CY Long Red Narrow Cayenne** (75 days) Open-pollinated. Often curled and twisted, the wrinkled peppers grow 5–6" long, 1/2" across, and taper to a point. Dark green color changes to bright red. Prolific ("produce zillions") and hot. The backbone of Hillary Nelson's red chile pastes. Along with **3866** Matchbox dries easily on screens; Holli Cederholm blends them in a food processor for crushed red pepper. Pre-1827 heirloom. Pungent; 3,500–5,000 Scovilles. ②

**A**=0.5g, 90¢ **B**=1g, $1.60 **C**=2g, $2.60 **D**=4g, $4.00 **E**=28g, $7.50

**3831JO Jaluv An Attitude OG** (75 days) Open-pollinated. This coup by amateur breeder Relentless has at least three kinds of peppers in its pedigree, although it looks like a jalapeño in both shape and size. In the breeder's own words: "If I had to have one chili on a desert island, it used to be a jalapeño. Now maybe not. This new chili is the result of a cross between an open-pollinated jalapeño and (my own) original that was called 45˚ N Attitude. The object was to have a thicker-skinned 45˚ with a lot of jalapeño flavor. The 45˚ N had thin skin, delicious hot fruity flavor, and dried and produced well in northern latitudes. My overriding intent in crossing them was to obtain the best combination of both." Got attitude? 2,500–8,000 Scoville units. MOFGA-certified. ☘2008. ①



**A**=0.2g, $1.70 **B**=0.4g, $3.20 **C**=1g, $6.00 **D**=2g, $10.00 **E**=4g, $17.00

**3834EJ Early Jalapeño** (75 days) Open-pollinated. Hot, hot, 3x1" sausage-shaped blunt fruits mature early. Characteristic brown netting appears as fruit ripens from dark green to dark red. Packing the seed makes us teary-eyed! From Jalapa in the state of Veracruz, Mexico. 4,000 to 6,500 Scoville units at maturity. ②

**A**=0.5g, 90¢ **B**=1g, $1.60 **C**=2g, $2.60 **D**=4g, $4.00 **E**=28g, $7.50

**3837HH Hungarian Hot Wax** (68 days) Open-pollinated. This hot type sets even in cool weather yet loved the hot 2012 summer even in Ohio. Smooth waxy yellow 5 1/2x1 1/2" fruits taper to a point and ripen from yellow to orange to red. Pickle all three colors for a beautiful hot-pepper medley—a staple for winter sandwiches. Nikos' favorite for chiles rellenos. Janine Welsby uses them in batches of her famous pepper butter. Originated 1941 in Hungary. 5,000–10,000 Scovilles. ②

**A**=0.5g, 90¢ **B**=1g, $1.60 **C**=2g, $2.60 **D**=4g, $4.00 **E**=28g, $7.50

**3841DO Hidalgo Serrano OG** (90 days) Open-pollinated. Slightly hotter than a Jalapeno, its "bright, fruity hot flavor lingers in the front of the mouth and makes your taste buds tingle all over," said one seed producer. Extremely prolific 3–3 1/2' plants yield dozens of light green fruits that ripen to bright scarlet. The 2 1/2–3 x 1/2" fruits, as fat as your ring finger but only as long as your pinky, have thin walls, a long seed cavity and classic serrano heat. They are perfect for fresh salsa and pickling or home-made hot sauces. 6,000–17,000 Scovilles. MOFGA-certified. ①

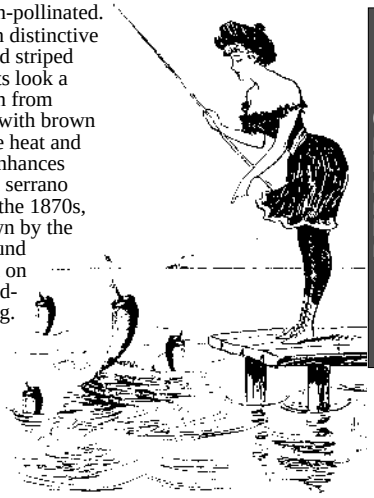
**A**=0.2g, $1.80 **B**=0.4g, $3.40 **C**=1g, $6.00 **D**=2g, $10.50 **E**=4g, $17.00

**3845PO Hot Portugal OG** (64 days) Open-pollinated. Bears elongated narrow fruits, 5–8" long, 1" in diameter with the classic wrinkled hip at the stem end. Superb pepper flavor comes through its considerable heat nicely. Not as hot as Super Chili, but hotter than Early Jalapeño. Early productive ripener of glossy scarlet fruits borne on tall plants. Most will turn straight from green to red, but 4% off-types will turn from green to yellow to red. Offered by Joseph Harris in 1935. 5,000–30,000 Scoville units. MOFGA-certified. ①

**A**=0.2g, $1.90 **B**=0.4g, $3.60 **C**=1g, $6.50 **D**=2g, $11.00 **E**=4g, $18.00

"Your descriptions are great. What's wrong with using your imagination? I still salivate when you describe your fruits & veggies."
–Sandra Otis, Fairless Hills, PA

**3849FO Fish OG** (80 days) Open-pollinated. A most attractive pepper plant with distinctive green and white mottled foliage and striped fruits. The 2" curving pendant fruits look a little like swimming fish. They turn from white with green stripes to orange with brown stripes to red, packing considerable heat and full-bodied flavor that especially enhances shellfish. A mutation of a common serrano pepper that probably originated in the 1870s, by 1900 Fish was extensively grown by the African-American community around Philadelphia and Baltimore. Listed on Slow Food's Ark of Taste. 2' spreading bush plants benefit from staking. *May require a little too long season for the coldest pockets.* Occasional plants will regress to solid green leaves. Rogue out if you are saving seed. Fish crosses readily with other peppers, requiring greater populations and more isolation than most others to remain pure. 5,000–30,000 Scovilles. OEFFA-certified. ①



**A**=0.2g, $1.80 **B**=0.4g, $3.40 **C**=1g, $6.00 **D**=2g, $10.50 **E**=4g, $17.00 **K**=14g, $42.00

**3853BC Bulgarian Carrot Chile** (68 days) Open-pollinated. Also known as Shipkas. We first saw this show-stopper at Amy LeBlanc's farm. Colored like a polished fluorescent-orange carrot, the thin-walled 1 1/2–3 1/2" tapered fruits are as hot as they look and make welcome additions to chutneys, marinades and salsas, as well as excellent hot sauces. Also delicious dried and ground. Their fruity undertone nicely complements their heat. Just 18" tall, these plants bear clusters of peppers close to the main stem. Brought indoors, they produced in Amy's greenhouse till February. Heirloom was smuggled here through the Iron Curtain more than 30 years ago. 5,000–30,000 Scovilles. ③

**A**=0.5g, $1.50 **B**=1g, $2.70 **C**=2g, $5.00 **D**=4g, $9.00 **E**=28g, $36.00

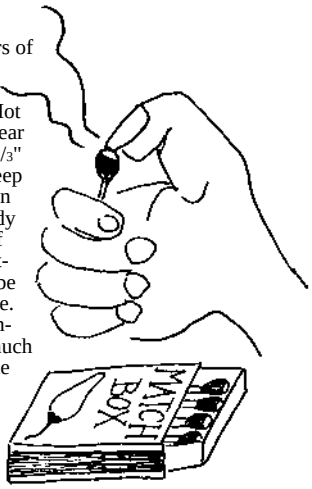
**3856HM Ho Chi Minh ECO** (68 days) Open-pollinated. "Hope to see Ho Chi Minh pepper again. I have a few seeds left over from 2013, but I will really miss it if I can't get more for 2015. Fantastic pepper, fresh or dried." Gretchen Madsen of Barnum, MN, you're in luck, Ho Chi Minh is **BACK**! Longtime Minnesota co-oper Steven Schwen sent us seeds for this beautiful shining cayenne pepper that he got in the 1980s when the first wave of boat people landed in Minnesota and came to his farm looking for chickens and ducks. He named it Ho Chi Minh in honor of the Vietnamese revolutionary who defeated all the colonialists who invaded his country. Schwen says it has a bite that makes you "run home to your mama!" We've enjoyed its prolific production (up to two dozen fruit per plant), its heat and good flavor. Peppers 4–5" long on 3' plants grow like large fingers turning from bright yellow to crimson in late August. 30,000 Scovilles. ☘2007. ①

**A**=0.2g, $1.40 **B**=0.4g, $2.50 **C**=1g, $4.50 **D**=2g, $7.50 **E**=4g, $14.00

**3860TO Thai Hot OG** (82 days) Open-pollinated. Anne Elder gets 200 of these little "sweeties" per plant, "cute little compact treasures full of heat." Its small conical peppers ripen to bright red and stand erect above the foliage so fetchingly that it's grown "in the trade" as a red and green Christmas potted plant. However, devotees of hot cuisine prize its sparks. Early pinching will produce a bushy 8" plant that can be pulled, roots and all, and hung to dry for winter use or grown inside for ornamental and edible enjoyment. Thai Hot checks in around 25,000-40,000 Scoville units. All seed is held over. MOFGA-certified. ①

**A**=0.2g, $1.80 **B**=0.4g, $3.40 **C**=1g, $6.00 **D**=2g, $10.00 **E**=4g, $17.00

**3866MO Matchbox OG** (75 days) Open-pollinated. A product of many years of dedicated breeding work to create an open-pollinated selection of the hybrid Super Chili. Parents include Hungarian Hot Wax and Hot Banana. The squat plants bear prolific upright fruit, averaging 2" long, 1/3" across and ripening from pale green to deep scarlet. Like Super Chili, they bear well in cold damp weather, hot dry weather, sandy soils and heavy clay. They have plenty of heat and the characteristic finely cut light-weight leaves of many hot peppers. Can be potted and overwintered. Now fully stable. As one customer put it, "All of my Match-boxes were extremely stable, infinitely much more so than me." 30,000-50,000 Scoville units. All seed is held over. MOFGA-certified. ☘2000. Ω ①




**A**=0.2g, $1.80 **B**=0.4g, $3.40 **C**=1g, $6.00 **D**=2g, $10.00 **E**=4g, $18.00

## HOT PEPPERS continued

**3870HO Hinkelhatz OG** (88 days) Open-pollinated. Not for the chicken-hearted, this rare Pennsylvania Dutch heirloom packs considerable heat. Its name aptly describes the size and shape of its 3/4x1 1/2" pendant peppers that taper to a blunt point and are covered with tiny bumps and wrinkles. Ripening from green to red, the tough skins when cut open emit a fruity redolence and reveal a thick juicy flesh. Rarely eaten raw, the peppers were traditionally used for pickling and making pepper vinegar. Nearly as hot as habaneros, they do not require quite as long a season, nor are they as picky in cool environments. Plus they are compact enough to grow in a pot to bring inside for the winter. Hinkelhatz recently boarded the Slow Food's Ark of Taste. Thank you, Amy LeBlanc, for bringing it to our attention. 125,000 Scovilles. MOFGA-certified. ①
**A**=0.2g, $1.80 **B**=0.4g, $3.40 **C**=1g, $6.00 **D**=2g, $10.00
**E**=4g, $18.00

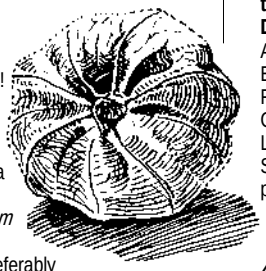
**3874HB Habanero** (90 days) *C. frutescens* Open-pollinated. A Scotch Bonnet–type infamous for its extreme heat, fiery Habanero registers a blistering 200,000–325,000 Scoville units, depending on how hot the growing season. 30–80 times as hot as Early Jalapeño! Each 1 1/2' plant will set 10–20 pendulous fruits that turn from dark green to tangerine as they mature. Fruits are somewhat wrinkled from stem to tip. Their distinctive flavor makes them a key ingredient in West Indian jerk sauce. We recommend greenhouse culture for the northern third of our sales area where frequent nighttime temperatures below 70˚ make outdoor production iffy. ②
**A**=0.5g, $1.10 **B**=1g, $2.00 **C**=2g, $3.20 **D**=4g, $5.00
**E**=28g, $22.00

**3897SH Some Like it Hot Mix** (64-90 days) Love hot peppers but lack the space to try separate packets of each? Try our blend of 5–7 different kinds all in one packet. We'll mix colors, shapes and flavors.
**A**=0.2g, $1.70 **B**=0.4g, $3.20 **C**=1g, $6.00 **D**=2g, $10.00
**E**=4g, $17.00

**3999SP Potassium Nitrate ($KNO_3$)** Also known as saltpeter, used to soften the coat of many seeds in order to expedite germination. Recommended for brassicas, eggplant, peppers, tomatoes. basil, endive, radicchio, and most flower seed. Comes in fine granular form. Dilute 1/2 tsp in 1 qt water. Use as a pre-soak for seed or to water seedling flats. 10g packet contains 2 tsp. *Note: Not approved for certified-organic use.* ③
**A**=10g, $1.30

# PHYSALIS

## HUSK or GROUND CHERRIES *P. pruinosa*



**1,300-1,400 seeds per g.** A treat inside every paper wrapper! Same genus as Chinese Lantern and tomatillo, fruits ripen inside their protective husks. As clusters of berries sweeten, they turn from green to golden yellow, drop off the decorative branching plants, and reach perfection as their husks thin to a near-gossamer papery consistency. The berries have an indescribable nutty flavor, great for raw snacks. *Don't eat them green—they can be a powerful emetic.*

**Culture:** Need filtered light and temperatures at least 75˚, preferably closer to 90˚, to germinate. Cover seeds with just a light sprinkling of soil and place the flats in the hottest part of the greenhouse, transplanting after last spring frost. Husk cherries tolerate a touch of frost but give up when temperatures dip below 30˚. In a good year, about half will ripen in time. Will readily self sow, although volunteers never mature as quickly as those started indoors.

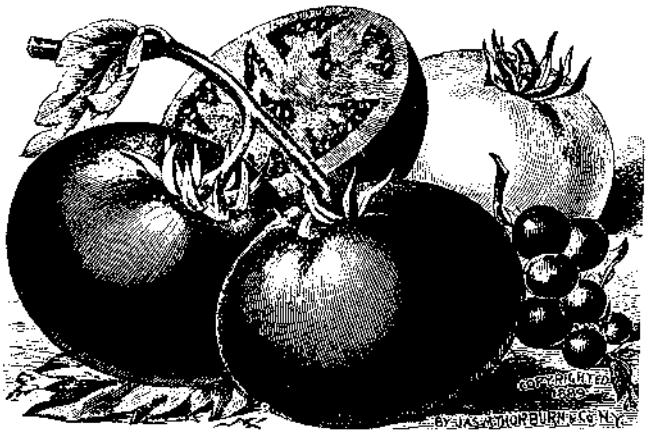
**4005MO Aunt Molly's Ground Cherry OG** (72 days) Open-pollinated. A slightly shorter version of the ground cherry with fruits a little smaller than our generic variety but with excellent flavor. Though native to Central America, this heirloom was widely grown in Poland and has been boarded by the Slow Food Ark of Taste. Won over Heron who had previously been indifferent to husk cherries. Will replace **4008** in subsequent years. MOSA-certified. ② **NEW!**
**A**=0.5g, $1.90 **B**=1g, $3.20 **C**=2g, $5.50 **D**=4g, $9.00
**E**=28g, $40.00

**4008HC Husk Cherry** (77 days) Open-pollinated. We are phasing out this generic strain. ③
**A**=0.5g, $1.00 **B**=1g, $1.70 **C**=2g, $2.80 **D**=4g, $4.50
**E**=28g, $20.00

## TOMATILLO *P. ixocarpa*

**Culture:** Start indoors 2 weeks after tomatoes lest they get leggy. If seedlings do get leggy, transplant them deep so the stems can root. Some like them pruned, others let them sprawl. Space plants 3' apart for the sprawlers, closer if you plan to prune. Ideal germination temperature 75–85˚.

**4015VO Verde Puebla Tomatillo OG** (77 days) Open-pollinated. To make salsa verde, harvest golf-ball-sized green fruits when their papery husks split. Or allow them to turn slightly yellow for a tangy nutty raw snack. They will split before becoming fully ripe. Verde stood out as having the sweetest flesh in our trials. Sprawling plants put out huge crops of 1 1/4–2" green balls. Ready for salsa in mid-August. Seed crop was selected for beautiful big gold fruits. MOFGA-certified. ①
**A**=0.2g, $1.50 **B**=0.4g, $2.60 **C**=1g, $4.00 **D**=2g, $6.60
**E**=10g, $22.00



# TOMATOES *Lycopersicon esculentum*

**9,000 seeds per oz, 0.2 gram pkt ~60 seeds, 0.5 gram pkt ~150 seeds.**

**About tomato seed:** Good seed retains viability so we often commission two-year productions. Organically and sustainably grown seed was rinsed with a sodium hypochlorite solution to reduce risk of seed-borne disease. This treatment poses no health risks.

**Culture:** Tender, cannot tolerate frost. Usually started indoors Feb–April. Avoid using fresh manure as it causes lush foliage with few ripe fruits. Instead use generous amounts of well-rotted cow or horse manure, or compost to boost plant vigor, and crushed eggshells at the bottom of each hole for calcium. Heavy phosphorus needs. Respond well to foliar sprays.

**Determinate** (**Det**) bush varieties may be staked, should not be pruned. **Indeterminate** (**Ind**) climbing varieties are customarily staked and pruned. Tomato experts Carolyn Male and Kokopelli's Dominique Guillet both oppose pruning, arguing more abundant foliage provides more photosynthesis.

Minimum germination soil temperature 50˚, optimal range 60–85˚, ideal temperature 77˚. Emergence takes 43 days at 50˚, 14 days at 59˚, 8 days at 68˚ and 6 days at 77˚ and 86˚. 98% normal seedlings at 59˚ but only 83% at 86˚. **For all tomatoes, days to maturity are from date of transplanting.**

**Diseases:**

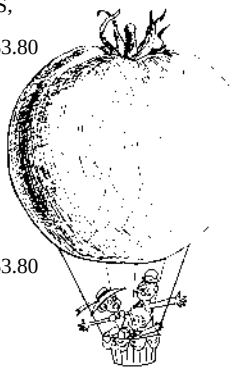
| | | | |
|---|---|---|---|
| ASC | Alternaria Stem Canker | N | Nematodes |
| EB | Early Blight | SEPT | Septoria Leaf Spot |
| F | Fusarium | TMV | Tobacco Mosaic Virus |
| GLS | Grey Leaf Spot | V | Verticillium |
| LB | Late Blight | | |

See sidebars next page and 66 for more detailed information about tomato diseases, particularly Late Blight.

## Open-pollinated TOMATOES

**4018LO Glacier OG** (56 days) Det. Glacier ripens around the same time as the sub-arctics with about the same size (1–2"), and almost no cosmetic defects except yellow shoulders, but there the comparisons end. Glacier's rich tomato flavor relegates the insipid sub-arctics to the compost pile. It is also superior to the highly touted Siberia tomato, to Stupice, to Early Temptation, to Bloody Butcher and, in fact, to every other tomato in the same class that we've tried. Originally from Sweden, 1985. Potato-leaf foliage. All seed is held over, tests at 81%. MOFGA, MOSA-certified. ①②
**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60
**E**=10g, $22.00

**4025SO Oregon Spring OG** (58 days) Det. Recommended as a "hedge" in northern climates for cold summers. When most other varieties fail to ripen in time, Oregon Spring matures good-sized fruit in August, actually performing best during cool summers. Develops more cosmetic defects in the heat and humidity. Bears succulent almost seedless fruits, up to 4" but somewhat variable. Tastes unusually good for such an early variety. Bred and developed from Russian parents by Dr. James R. Baggett of Oregon State University, and released in 1984. Not suitable for market growers. All seed is held over; 81% germ. Resistant to V. ICS, MOFGA-certified. ①
**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80
**D**=2g, $6.60 **E**=10g, $22.00



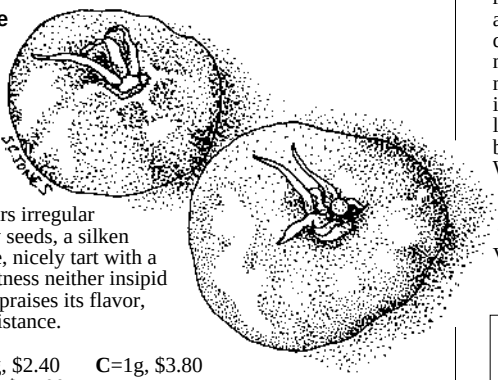
**4032GO Ida Gold OG** (59 days) Det. Often these delightful orange 2-bite low-acid fruits are the first tomatoes to ripen for us. They are early and prolific even in bad tomato years. Developed specially for the North by the University of Idaho. Performs indifferently in so-so soil, but yields bountifully when fed compost and rotted manure. MT-certified. ①
**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80
**D**=2g, $6.60 **E**=10g, $22.00

**4038CO Cosmonaut Volkov OG** (65 days) Ind. "Cosmonaut Volkov is now our 'early' tomato. Handles cold...unscathed," says Anne Elder. A superb home-garden variety with good commercial potential both outdoors and in tunnels, Cosmonaut always tastes good, occasionally sublime. The best two tomatoes I've ever eaten were Cosmonauts from different gardens in different years. Usually ripens quantities of deep red slightly flattened 8–12 oz globes at the beginning of August when tomato craving is at its peak. Even in cold summers, it will produce dependably by mid-August. What makes Cosmonaut so special is its juice: sweet, rich and full-bodied. Volkov was the Russian explorer who fell through space. From Dnepropetrovsk in the Ukraine, brought to America by the Seed Savers Exchange. OT-certified. ①

**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00

**4045PO Garden Peach OG** (71 days) Ind. For well over a century savvy gardeners have brought Peach's little 2–4 oz fruits indoors before frost to keep for several weeks. Doreen Mundie says these are also wonderful dried. Yellow fruits blush pink when ripe and have thin fuzzy skins somewhat like peaches. Relatively early, prolific, soft-skinned, juicy and very sweet. Light fruity taste is not what you'd expect in a tomato. Burpee in 1893 called it "delicate, melting in the mouth like a grape." Amy Goldman places its 1890 origins with plant breeder Elbert S. Carman, owner and editor of *The Rural New-Yorker*. It was introduced as a novelty in Hallock & Son's (of Queens) 1890 catalog. Showed some tolerance to LB in Colrain this Aug.–Sept. OEFFA-certified. ①

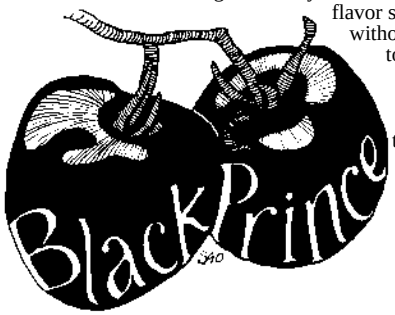
**A**=0.2g, $1.50 **B**=0.4g, $2.50 **C**=1g, $4.00 **D**=2g, $6.60 **E**=10g, $22.00



**4049RO Pruden's Purple OG** (72 days) Ind. We continue to dispute whether Prudens is superior to Brandywine, but, opinions aside, Pruden's is early for its size and makes a great sandwich tomato. We are back to our customary potato-leaved strain that bears irregular pink 1 lb fruit with very few seeds, a silken texture and rich tomato taste, nicely tart with a balanced undertone of sweetness neither insipid nor cloying. Brett Grohsgal praises its flavor, productivity and disease resistance. MOFGA-certified. ①

**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00

**4053PO Black Prince OG** (75 days) Ind. Welcomed by our customers after a 13-year absence from our catalog, the Prince of black tomatoes quintupled its sales. In 1997 when we were among the first to offer this émigré from Irkutsk, Siberia, we were way ahead of our time. These iridescent 5–7 oz garnet-colored globe-shaped fruits are among the most uniformly handsome in the tomato kingdom. They have earned a reputation for outstanding flavor similar to that of Black Krim, but without Krim's fragility and tendency to crack. A superior home-garden tomato that is also a reliable heavy-yielding field-to-market choice for growers without high tunnels. A favorite at Peter Maurin Farm, one of the Catholic Worker communities. CCOF, VT-certified. ③




**A**=0.2g, $1.40
**B**=0.4g, $2.40
**C**=1g, $3.80
**D**=2g, $6.60
**E**=10g, $22.00

"Winter is the best time to think about seeds, when thoughts of the lovely green things bloom in one's mind, without the labour involved."
–Constance French, Felsbeck Farm, King, NC

**Supplier Codes** Know where your seed comes from! See page 5 for details.
① Small seed farmers including Fedco staff.
② Family-owned companies or cooperatives, domestic and foreign.
③ Domestic and foreign corporations not part of a larger conglomerate.
④ Multinationals not to our knowledge engaged in genetic engineering.
⑤ Multinationals who are engaged in genetic engineering.
⑥ Manufacturers of neonicotinoids: Bayer and Syngenta.

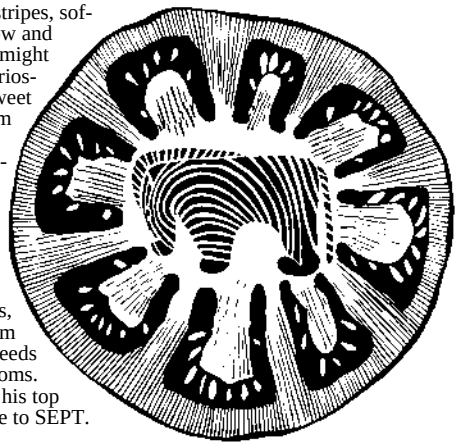
**4054GO Goldie OG** (75 days) Ind. Considered synonymous with Dixie Golden Giant. Though reputed to be over 150 years old, Goldie was introduced commercially in 1977 by Gleckler's Seedsmen. I rate it as the best of all orange tomatoes, delivering its rich flavor with an extraordinary velvety texture. Deep orange beefsteak fruits, frequently bi-lobed, average 16–20 oz. Often Roberta's first large tomato to ripen. Erica Myers-Russo from CT advises, "Don't harvest it until it has a distinct rosy blush" (on the bottom). Very productive. Will catface under cold or excessively wet conditions. Several people who grew our Heirloom Mix said Goldie was their favorite. MOFGA-certified. ①

**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00

**4055TO Rutgers OG** (75 days) Ind. When Rutgers University "refined" the variety in 1943, they took out some of the vininess but also some of the flavor. Our taste tests confirmed that the original indeterminate strain is better, so that's the strain we offer of this famous New Jersey tomato, developed by Campbell's Soup Co. in 1928 as a cross between Marglobe and JTD. Long considered an outstanding slicing, cooking and canning tomato, the medium-sized 4–6 oz mostly uniform and unblemished deep oblate fruits with rich red interior and pleasing texture have that great old-time flavor, delicious and juicy. Resistant to F1, V1, ASC and GLS. OT-certified. ①

**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00

**4056GO Green Zebra OG** (77 days) Ind. A most unusual beast in the tomato menagerie, this zebra starts out green with darker green stripes, softening and blushing yellow and apricot when it ripens. It might have remained a mere curiosity but for its delicious sweet rich flavor. Small-medium 4–5 oz fruits are emerald green inside. Perfect exteriors hold up under adverse conditions and don't crack. Now commonly found in upscale markets. Sometimes incorrectly shows up on lists of heirloom tomatoes, but was developed by Tom Wagner of Tater Mater Seeds in 1985 from four heirlooms. Kent Whealy ranks it in his top ten tomatoes. Susceptible to SEPT. VT-certified. ③



**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00

PREVENTING LATE BLIGHT:

Late blight struck again this year in Massachusetts, southern Vermont and other parts of our sales area. Even if it missed you, be mindful: in prolonged conditions of damp cloudy weather that have been so prevalent in recent summers, this disease can spread 30 miles per day.

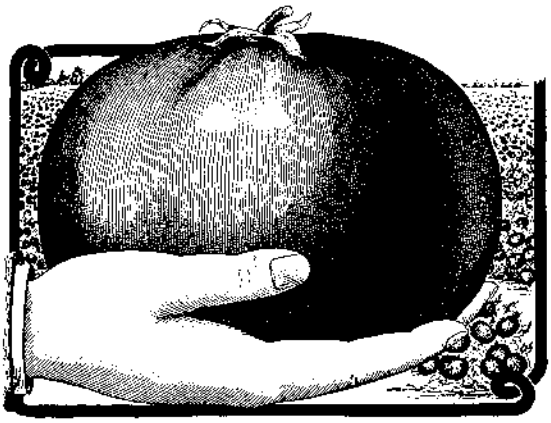
- Destroy—do not compost—any infected plants, fruits or parts. If you compost any diseased material, do not use that compost the next year.
- Late blight on tomatoes is not seed-borne. Saved tomato seed is okay if you ferment it properly.
- Grow your own tomato plants or buy locally grown seedlings. Know your farmer!
- Do not use saved potatoes as seed stock. Purchase only new certified-disease-free seed potatoes. More potato info on p. 119.
- Because disease spores travel air-borne, allowing unstaked plants to sprawl may reduce their vulnerability.
- For still more information, see our website.

**Early blight** shows up as drying and dying leaves *at the bottom of the plant.* EB can be managed culturally, should not result in significant loss of crop. Mulching deters EB by reducing rain splash on foliage.

**Late blight** usually starts at the top of the plant or on the *windward side.* As the earliest infection arrives on warm southerly winds, monitor the south and southeast sides of the garden carefully. Later in the season the wind can bring it from any direction. Early in the season, late blight infection shows as roundish lesions on leaves that uniquely will *cross the center vein of the leaf.* Later, blotches appear on stems. Still later, hard crusty lesions form on fruits.

**Septoria Leaf Spot** can appear almost overnight. It is characterized by yellowing and small circular spots on older leaves. It can eventually spread to the entire plant in conditions of high humidity and temperatures. It can be spread by wind or carried on clothing and tools. Septoria can live over the winter on live tissue, so don't compost affected plants.

Consult **vegetablemdonline.ppath.cornell.edu/** for excellent photos and information. Use services such as the MOFGA Pest Reports to know if and when blight appears south of you.



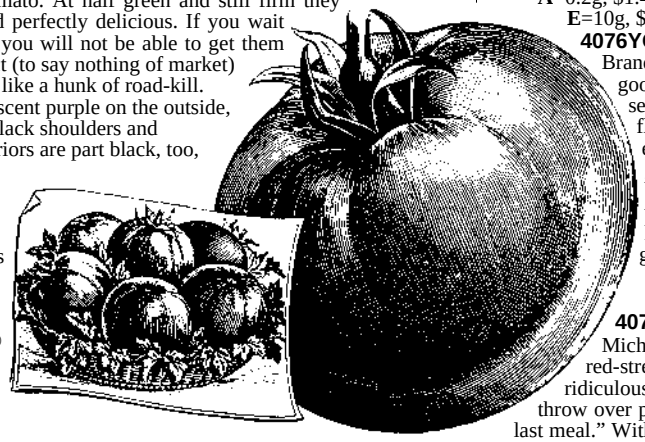
**4059CO Cherokee Purple OG** (77 days) Ind. but with relatively short vines. No list of the best-tasting heirloom tomatoes would be complete without Cherokee Purple, an unusual variety from Tennessee, said to have originated with the Cherokee Indians. Fruits are globes to slightly oblate, averaging 10–13 oz, with dusky brownish-purple skin, dark green shoulders and brick-red flesh. The real attraction is their rich taste, described as "sweet rich juicy winey," "delicious sweet," and "rich Brandywine flavor" by aficionados maintaining it in the Seed Savers Exchange. Ranks in my top five for flavor. Expect some concentric cracking. Amy LeBlanc of Tomato Lovers Paradise suggests the vines should not be pruned because the delicate fruits sunburn easily. MOSA, CCOF-certified. ②③

**A**=0.2g, $1.30 **B**=0.4g, $2.20 **C**=1g, $3.60 **D**=2g, $6.00 **E**=10g, $22.00

**4060BO Paul Robeson OG** (78 days) Ind. This Russian heirloom was named in honor of Paul Robeson (1898-1976) who befriended the Soviet Union. Athlete (15 varsity letters at Rutgers!), actor (played Othello in the longest-running Shakespearean production in Broadway history), singer (world famous for his vibrant baritone renditions of Negro spirituals), orator, cultural scholar and linguist (fluent in at least 15 languages!), Robeson was an outspoken crusader for racial equality and social justice. Revered by the left, reviled by the right, he was blacklisted during the McCarthy Era and beyond, harassed by the FBI, his passport revoked for eight years, his career stifled. He died broken and almost forgotten, his life a testament to lost opportunities in 20th-century American history. His namesake tomato developed almost a cult following among seed savers. The maroon-brick 6–12 oz oblate often bi-lobed fruits with dark green shoulders come closest in flavor to Black Krim, but claim their own distinctive sweet smoky taste. A sandwich tomato with a tang, an extraordinary tomato for an extraordinary man. Reportedly prone to splitting. MOFGA-certified. ①

**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00

**4061KO Black Krim OG** (80 days) Ind. Don't wait too long to harvest this delicate heirloom tomato. At half green and still firm they are already dead ripe and perfectly delicious. If you wait till they are fully purple, you will not be able to get them from garden to table intact (to say nothing of market) and they will disintegrate like a hunk of road-kill. Krims are strikingly iridescent purple on the outside, usually with dark green-black shoulders and noticeable catfacing. Interiors are part black, too, with an unusual juicy yet meaty taste and texture, described as having "…a smoky flavor like a good single malt scotch." Fruits average 12–18 oz. Krim hails from Krymsk on the Black Sea in Russia. MOFGA, OT-certified. ①



**A**=0.2g, $1.40
**B**=0.4g, $2.40
**C**=1g, $3.80
**D**=2g, $6.60
**E**=10g, $22.00

**4065JO Jubilee OG** (80 days) Ind. Also known as Golden Jubilee. Amy Goldman describes its flavor as "sprightly" and says it was a favorite of Ben Quisenberry of Big Tomato Gardens in Syracuse, OH, who offered it under the name Golden Sunray. Nikos discovered Jubilee at a Waldo County Extension taste test at Unity College. The best medium-sized open-pollinated orange tomato, Jubilee ripens smooth-textured sweet mild meaty 8 oz globes. Pruning will produce larger fruits. Nikos brought me back one from the tasting and it was superb, almost on a par with Goldie both for texture and flavor. Jubilee is smaller than Goldie and less prone to blemish. A cross between Tangerine and Rutgers, it won an AAS for Burpee in 1943. Seed is held over at 85% germ. Resistant to ASC. MOFGA-certified. ①

**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00

**4067RO Rose de Berne OG** (80 days) Ind. This Swiss émigré could be considered the Brandywine of continental Europe. Like Brandywine, has many strains, and is widely considered in France, Germany and Switzerland to be the best-flavored tomato. Only medium-sized yet delivers the robust flavor of the bigger types. It bested some formidable competition in our trials—including June Pink, Gulf State Market and the celebrated Eva Purple Ball with a rich sweetness the others couldn't match. I enjoyed one juicy 5 oz translucent smooth pink fruit after another. No slouch in the appearance department either, the unblemished globes are perfectly round, the soft skins not excessively fragile and the color and size very attractive, making it another excellent field-to-market variety that does not require high tunnels. Some LB tolerance. MOFGA-certified. ①

**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00

**4069GO German Johnson OG** (80 days) Ind. An old heirloom probably from Virginia or North Carolina. This large regular-leaf plant, one of the parents of Mortgage Lifter, is known for its copious yields of pink meaty fruits often exceeding 1 lb, mild with more than a touch of sweetness. OT-certified. ①

**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00

**4071SO Soldacki OG** (80 days) Ind. You won't find a better sandwich tomato than Soldacki, a heavy producer of meaty tasty 14 oz pink globes with a good mix of sweetness, tartness and real tomato flavor. Tall potato-leaf vines. Originally from Krakow, Poland, brought to Cleveland, OH, around 1900, then to Albany, NY. Prone to cracking in wet seasons. Maine-grown. MOFGA-certified. ①

**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00

**4075BO Pink Brandywine OG** (82 days) Ind. with potato-leaf foliage. Hardly a year passes without advocates claiming another pretender "is better than Brandywine." I demur. This famous tomato put heirlooms on the map and thick-skinned hybrids on the run. Pink Brandywine was introduced by the illustrious Ben Quisenberry around 1979, and was his favorite. Doris Sudduth Hill's family kept this tomato for more than 100 years and gave Quisenberry his seed. Brandywine can be fussy to grow, has problems with catfacing, EB and sometimes late maturity, but plenty of commercial growers have had success, even in northern New England. Some even report limited LB tolerance. "Bite one, you'll be sold forever," advises Anne Elder. Meaty with just the perfect hint of tartness, the oblate beefsteak fruits average right around a pound, ripening unevenly throughout the season, often preferring cool early fall to the peak heat of August. MOFGA, OT-certified. ①

**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00

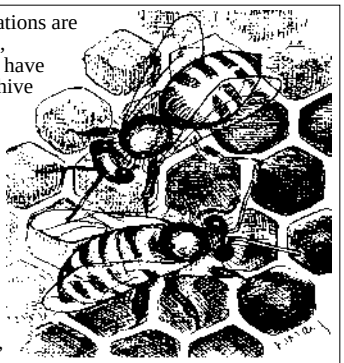
**4076YO Yellow Brandywine OG** (82 days) Ind. Growing Yellow Brandywine can be maddening. When she's good, she's very very good, but when she's bad she's awful. All strains (and there are several) develop irregularly-shaped fruits in extreme weather fluctuations. Good appearance correlates closely with good eating quality. Compost the weird-looking fruits; enjoy the good ones! Large slightly ribbed 1 lb fruits with an identifiable ring scar at the blossom end often remarkably smooth, with a creamy texture and rich complex tangy flavor. Not the highest yielding. Potato-leaf foliage. In the running for best golden tomato, but by no means a shoo-in. OT-certified. ①

**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00

**4077NO Pineapple OG** (85 days) Ind. Garden author Michelle Owen says, "I roast...these exceptionally sweet red-streaked yellow tomatoes...in a hot oven, then sauté with ridiculous amounts of garlic, rosemary and extra virgin olive oil and throw over pasta. Before I face the firing squad, I will ask for this as my last meal." With its silky smooth texture and complex fruity taste, Pineapple may be the best of the genre of striped tomatoes. Typically grows huge fruits in excess of 1 lb that get a little funky cosmetically. Cut in half, it looks like the interior of a pineapple except with yellow and red marbling. It doesn't taste like a pineapple, though, nor like a typical red tomato, either. Its unique mild low-acid fruity sweetness needs a fruit name all its own. Originally from Kentucky, but our seed stock came from Martha Gottlieb of Common Ground Fair Exhibition Hall fame. OT-certified. ①

**A**=0.2g, $1.50 **B**=0.4g, $2.50 **C**=1g, $4.00 **D**=2g, $6.60 **E**=10g, $25.00

"All over the world, bee populations are declining because monoculture, insecticides, and economics all have conspired to make life in a beehive difficult to sustain.
As large industrial beekeeping operations continue to disintegrate, however, there is an opportunity to save the bees in small isolated communities. In backyards and on rooftops all over the world, bees are being kept without chemical inputs."
–Les Crowder,
from *Top Bar Beekeeping*, **9861** in the book section.



**4080AO Aunt Ruby's German Green OG** (85 days) Ind. "The biggest surprise I've ever experienced in tomatoes," said the late Chuck Wyatt, vintage tomato collector. Until you try it, you won't believe a green tomato could be this good. I rate it second only to Brandywine for flavor and it is on just about everyone's top-ten list. Oblate 12–16 oz fruits blush lightly yellow and develop an amber-pink tinge on the blossom end when ripe. Don't allow them to get too soft before picking. The green flesh of this beefsteak is faintly marbled with pink. Flavor sweet and tart, rich and spicy. The central large tomatoes are the best. Flavor deteriorates when cold weather sets in. Created a sensation at our staff taste test in September 1996, where it was rated "good" or "excellent" by all who tried it. Aunt Ruby's is not just the best green eating tomato, it also makes a delicious basis for salsa verde. Originally from Ruby Arnold's German immigrant grandfather, introduced in the 1993 Seed Savers Exchange Yearbook by Bill Minkey of Darien, WI. Nominated to Slow Food's Ark of Taste. CCOF-certified. ③

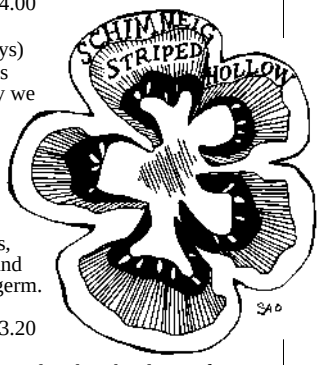
**A**=0.2g, $1.30 **B**=0.4g, $2.20 **C**=1g, $3.60 **D**=2g, $6.00 **E**=10g, $22.00

**4081MO Mark Twain OG** (85 days) Ind. Ind. Odd that a tomato would be named for the famous writer who professed not to like them. He did write a 1906 story about an unsuccessful 10-hour wild turkey chase in his youth that left him famished and lost in the woods. He rescued himself by finding a garden full of ripe tomatoes. We don't know the history of this obscure heirloom that might be as old as his story. The tomato is rare, but worth preserving on the strength of its deep red interior color and full-bodied flavor. These tomatoes are good-sized and crack free, though soft so they won't take a lot of handling. Twain puts out a lot of ribbed 8–24 oz. oblate fruits in September. Though we know of no other commercial sources and of only one seed saver (in Wisconsin) maintaining it, it is one of the best-tasting heirloom beefsteak tomatoes. VT-certified. ① **BACK!**

**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00

**4083WO Weisnicht's Ukrainian OG** (85 days) Compact Ind. with potato-leaf foliage. The tastiest heirloom tomato that almost no one knows. Not for long. We believe we are the lone commercial source, but that won't be true for long, either. We received the original seeds for this scrumptious pink tomato from Scott Weisnicht of Waupun, WI, in 2004 and in my trials that year it received an unusually high 4–4.5 out of 5 taste evaluation, #1 among the 43 varieties I grew that cold wet summer. We got a nice note from Weisnicht thanking us for our perseverance. It took us 9 years to get his tomato in the catalog. "I hope others will now enjoy what I have for many years now," he said. I savored my first fruit in Colrain on Sept. 4, 2013 the flavor sweet, rich and complex with delicious acid overtones. The medium-sized 8–12 oz fruits are sparse seed bearers. They begin producing in late August or early September with a 3–4 week moderately productive main harvest period. Weisnicht also supplied us with our first seeds for the much-revered rare **984** Pride of Wisconsin melon. OT-certified. ①

**A**=0.2g, $1.50 **B**=0.4g, $2.50 **C**=1g, $4.00 **D**=2g, $6.50 **E**=10g, $25.00




**4084SS Schimmeig Striped Hollow** (85 days) Ind. Despite its scant sales, we refuse to drop this beautiful mostly hollow stuffing tomato. "If only we could teach people about mixing bread crumbs, sour cream, salt, pepper and parmesan cheese for stuffing, these perfect baking tomatoes would really sell," predicts Anne Elder. Sturdy plants filled with clusters of 2½–5 oz red fruits delicately painted with thin stripes of gold. Perfectly shaped like small tri-lobed bell peppers, Schimmeigs stand up straight, hold their shape and melt in your mouth. All seed is held over; 88% germ. MOFGA-certified. ①

**A**=0.2g, $1.20 **B**=0.4g, $2.00 **C**=1g, $3.20 **D**=2g, $5.00 **E**=10g, $18.00

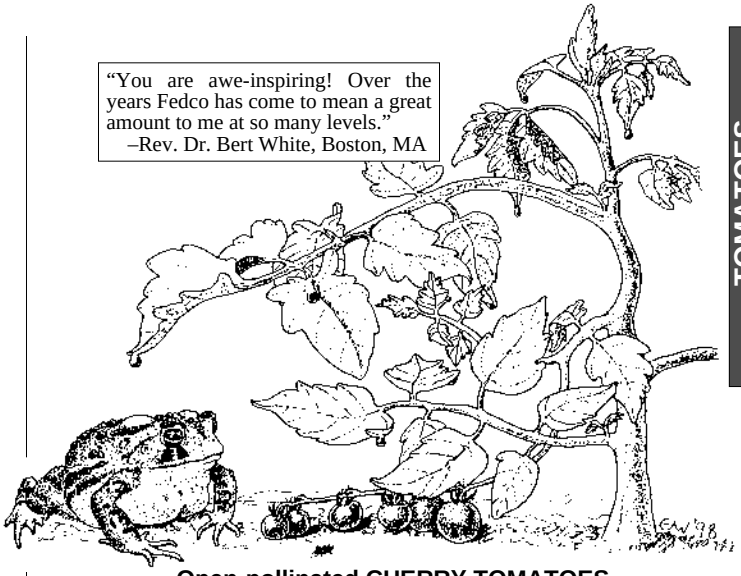
**4087TO Tiffen Mennonite OG** (86 days) Ind. This heirloom from Mennonites in Wisconsin was first introduced to the Seed Savers Exchange by Thane H. Earle of Whitewater, WI. Tiffen has many similarities to the more famous Brandywine—potato-leaf foliage, pink skin, and rich old-fashioned tomato taste that has twice drawn raves at staff tastings. The large rough oblate beefsteak fruits (avg 15 oz) are a tad bigger and later than Brandywine. For a superb sandwich tomato or a fresh garden snack Tiffen is hard to top. All seed is held over at 85% germ. MOFGA-certified. ①

**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00

**Lillian's Yellow Heirloom OG** (88 days) Ind. Crop failure; *not available in 2015.*

**4097RO Ruby Gold OG** (90 days) Ind. As aesthetically appealing as it is delicious, Ruby boasts prolific beautiful huge red-streaked yellow fruits with marbled interior flesh, meaty with superb mild sweet flavor, smooth melting texture and not a bit of acidity. Introduced by John Lewis Childs of Floral Park, NY, in 1921. Rediscovered by tomato aficionado Ben Quisenberry in Bob's Market in Mason, WV, in 1967, and reintroduced to commerce some years later. Quisenberry offered it under three different names, first Early Sunrise, later Gold Medal and finally Ruby Gold. Tomato cognoscenti rate it as one of the best. Fruits slightly flattened with red spot on the blossom end, seldom cosmetically perfect, prone to radial cracking. OT-certified. ①

**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00



"You are awe-inspiring! Over the years Fedco has come to mean a great amount to me at so many levels."
–Rev. Dr. Bert White, Boston, MA

## Open-pollinated CHERRY TOMATOES

**4103SO Gardener's Sweetheart OG** (62 days) Ind. Master seed saver Will Bonsall, better known for his preservation work, joined the ranks of plant breeders by spotting this chance cross in his greenhouse and selecting it in his fields. This mating of juicy flavorful but crack-prone **4109** Gardener's Delight with determinate paste tomato Royal Chico (good solids, dry pulpy flesh, tough skin and indifferent flavor) combines most of Delight's richness with some of Chico's toughness. The resultant sweet bright red strawberry-shaped medium-sized fruits with a dimple on the end are ideal for shish kabob. Firm and a bit hard, they don't fall apart or crack under any circumstance. The rugged plants are loaded with trusses of 6–8 of these exquisite delights. Bonsall has selected for at least three generations with no detectable off-types and says his Sweetheart is ready to share. Ripened for Donna Dyrek on July 26, 2013. We are pleased to be among the first to offer. MOFGA-certified. ① **NEW!**

**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60

**4106HD Honeydrop ECO** (62 days) Ind. rampant vines. From a selection of F-1 Sunsugar. Rachel and Tevis Robertson-Goldberg of Crabapple Farm in Chesterfield, MA, developed Honeydrop, sent us the original seed and continue to grow our seed crop. Honeydrop's sweet juicy fruity honey-colored treats taste almost like light grapes. They are much less prone to cracking in wet weather than **4252** Sungold. In 2011, seeking to add another light-colored cherry to our selection, I trialed it against Blondkopchen, Dr. Carolyn, Isis Candy, Lemondrop and Weissbehart. It bested them all by such a wide margin in earliness, sweetness and complexity that we declined to add any of those others. Parthenocarpic. *Still retains a percentage of recessive pink fruit off-types but see **4107**; these are also yummy!* Short crop: *order early.* ☙2011 ①

**A**=0.2g, $1.60

**4107PP Pink Princess Gene Pool ECO** (62 days) Ind. rampant vines. From the originators of **4106** Honeydrop comes the even more exciting Pink Princess, a sensational recessive pink-fruited off-type of the Honeydrop. I have never tasted a pink cherry tomato as deliciously sweet. Large and early for a cherry tomato, the fruits, averaging 12.7g, began maturing just past mid-August in this cold summer. The thick skins, somewhat resistant to cracking, detract not one iota from the eating experience. Though completely unlike **4252** Sungold in size, skin thickness, color and in the lack of an acid tang, Pink Princess has been drawing favorable taste comparisons. Still a work in progress, so will also contain some delectable egg-shaped golden Honeydrop types, some small and larger red round entries as well as true Princesses. Slow to give in to LB. Destined to become a classic. Parthenocarpic. *Short crop; order early.* ☙2013 ①

**A**=0.2g, $1.50 **B**=0.4g, $2.50

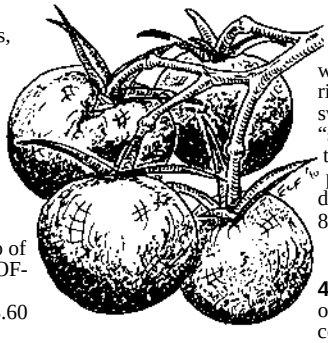
**4108BO Be My Baby Gene Pool OG** (65 days) Ind. This productive cherry is the ongoing result of a cross of three famous tomatoes: an heirloom potato-leaf beefsteak and two cherries, one orange and one red. The crossing and selection process for a red cherry with regular tomato foliage began in 1997 and is now complete. The grape tomato in its background lends a rich sweet flavor somewhat akin to that of Sweet Baby Girl, which it replaced. Bred by Relentless. ☙2007. OT-certified. ①

**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00

**4109GD Gardener's Delight** (68 days) Ind. Also known as Sugar Lump, and of German origin, not an heirloom as we once believed. Introduced by Ernst Benary in 1950-51. A parent of the famous hybrid Sweet 100. Produces the kind of rich sweet deep red 1+" cherries that you will want to pop into your mouth in profusion while you bask in the garden sunshine. The large plants need staking and will bear till frost. The fruits taste so good that I overlook their annoying tendency to crack. ②

**A**=0.5g, $1.20 **B**=1g, $2.10 **C**=2g, $3.50 **D**=4g, $5.50 **E**=28g, $20.00

**4115BO Black Cherry OG** (75 days) Ind. Two-bite cherries (avg. 14-28g) with the dusky color and complex flavor typical of the best black tomatoes, juicy and delicious. Somewhat late for a cherry tomato, fruit ripens slowly and individually until frost, but worth the wait. Examine each plant closely at picking time: the dark-hued cherries are easy to lose in the foliage. Best flavor if left to ripen on the vine till nice and dark. Seems to tolerate the usual tomato diseases but fruits will crack readily in rainy weather. Combine with **4252** Sun Gold and any bright red cherry for a lovely display. Brix 7. Developed by Vince Sapp of Tomato Growers Supply and released 2003. CCOF-certified. ②



**A**=0.2g, $1.30 **B**=0.4g, $2.20 **C**=1g, $3.60 **D**=2g, $6.00 **E**=10g, $22.00

**4117PO Principe Borghese OG** (75 days) Vigorous Det. An Italian heirloom with excellent flavor. Used for sun-dried tomatoes as it has few seeds and little juice. In our humid climate, we require a solar dryer or a 100˚ oven to dry the fruits successfully. Bears small fruits in prolific clusters over a long season. CSA grower Jill Agnew lauds them for holding their perfect shape so well without cracking. MOFGA-certified. ①

**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00

**Green Egg Yolk OG** (78 days) Ind. Crop failure. *Not available this year.*

**4119VO Peacevine OG** (78 days) Rampant Ind. Selected by Peace Seeds from Sweet 100 cherry tomato and almost identical in fruit size and growth habit. Bears gazillions of sweet clusters each with 8 or so 1" fruits of "wonderful sweet/tart rich flavor." Has the currant tomato in its ancestry. Very high in vitamin C and GABA, a sedating neurotransmitter. That may be why Alan Kapuler named it Peacevine. CO-certified. ①

**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00

**4121DO Green Doctors Frosted OG** (81 days) Ind. Low acid, sweet, and delicious, and so much better than Green Grape in our trials. There are two strains of Doctors; this frosted one is the sweeter of the two. Fruits green with a silver frost, blush gold when ripe. Named in honor of the two doctors, Amy Goldman and Carolyn Male, who have written influential books on tomato varieties. Goldman discovered Green Doctors as a cherry sport of Dr. Carolyn in her 2002 garden and turned us on to it in her book *The Heirloom Tomato*. Oval fruits 3/4" wide and 1 1/4" long average 11.2g, wonderful additions to a cherry tomato mix. Makes great salsa verde; just add lime. Large 5' rambling plants are prolific producers and resisted EB all season. No new crop. All seed is held over at 82% germ and *in very short supply*. MOFGA-certified. ①

**A**=0.2g, $1.50

**4122FO Fargo Yellow Pear OG** (82 days) Ind. Introduced 1934 by Oscar Will & Co. of Bismarck, ND, yet another of famous breeder A.F. Yaeger's creations. He crossed Bison with Yellow Pear for earliness and higher yields. Each plant produces about three dozen sweet tasty 1 oz fruits. About twice the size of regular pear tomatoes, the meaty morsels are crack resistant. All seed is held over, tests at 88%. ICS-certified. ①

**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00

Diseases: Bacterial Canker, Spec and Spot
Cultural controls: Disinfect greenhouse materials & cages, farming tools & gloves, avoid overhead irrigation, don't work crop when wet, rotate crops, use compost.
Material: Copper (**8861-3**).

Disease: Anthracnose
Cultural controls: Rotation, mulching, minimize plant wetness, staking, use compost.

Disease: Early Blight
Cultural controls: Rotation, avoid stressing plants, staking, keep leaf wetness to a minimum, mulching, indeterminate varieties are more resistant/tolerant, disinfect stakes & cages.
Material: Trichoderma harzianum (Root Shield **8853**) or Streptomyces lydicus (Actinovate **8851**).

Disease: Late Blight
Cultural controls: Destroy cull potatoes & potato volunteers, avoid overhead irrigation.
Material: copper products.

Disease: Septoria Leaf Spot
Cultural controls: Space plants for good air circulation.
Materials: copper products.

Pest: Tomato Hornworm
Control: Look for frass (droppings) and handpick. Eeeuww!
Material: Bt *kurstaki* (**8902**), Spinosad (**8922-4**).

Pest: Tarnished Plant Bug
Cultural controls: Floating row covers (**9101**), good weed control.
Material: try Pyrethrum (**8925**) products.

## Open-pollinated PASTE TOMATOES

**4123MO Mr. Fumarole OG** (65 days) Ind. The same cultivar we formerly sold as Mr. Fumo. This large elongated 3–6" pinkish plum tomato was a winner in our 2007 paste test. Comments included "top of the line, rich, complex," "has a crispy brown flavor that lingers," "very flavorful, sweet meaty good," "nice blend of flavors, tart but full tomato flavor," and "sweet, somewhat bland but haunting. I would try it again." Though tough-skinned, can also be eaten out of hand where its tart sweetness pleases. Fair yields. Did not get blossom-end rot, even in 2011 when that disease was prevalent in other paste varieties. All seed is held over, testing at 89%. ☙2009. OT-certified. ①

**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00

**4125HO Heinz 2653 OG** (68 days) Det. An early red plum type which often ripens all its 2 1/2–3 oz fruits before frost. Firm fruits for cooking, on compact plants. "The perfect canning tomatoes for a short season huge late blight pressure area. Small, loaded plants, fruits stayed clean even after all the leaves were gone. Most ripened at once so I could collect a huge canner load from a small number of plants," report the Wolperts in WV. Resists F and V. OEFFA, MT-certified. ①

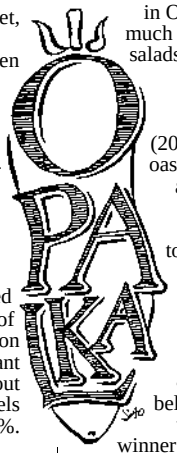
**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00

**4131GO Grandma Mary's OG** (68 days) Ind. In Sangerville, ME, Jeanne Griffin selected seed from this heirloom for 6 years for earliness and fruit size. Grandma's meaty 6–10 oz fruits are very early for their size. Grandma produces fruit even during cold summers. ☙1992. VOF-certified. ①

**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00

**4133LO Bellstar OG** (74 days) Det. Bred at Smithfield Experiment Farm in Ontario and introduced in 1981. Bears red 4 oz round paste tomatoes much larger than most others of this type. Delicious flavor is also good in salads. Ripening is spread over a long season. VOF-certified. ①

**A**=0.2g, $1.60 **B**=0.4g, $2.80 **C**=1g, $5.00 **D**=2g, $7.50 **E**=10g, $30.00



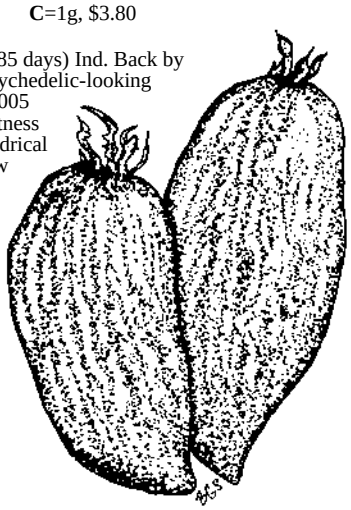

**4135PO Opalka OG** (82 days) Ind. Its third time in our taste test (2009) proved the charm for Opalka. Our tasters have commented, "an oasis of flavor in a desert of tomato hell," "a pleasing texture and good aftertaste lingers," "round and mellow flavor…full-bodied." Expect copious yields of 3x5" massive solid bull's horn-shaped red fruits with dry texture and few seeds. Also dries well. While some tomatoes faltered during the hot dry spells in 2010, Opalka produced consistently. The crinkly foliage is normal and not an indication of plant disease. Polish heirloom brought by the Opalka family to Amsterdam, NY, around 1900. MOFGA-certified. ①

**A**=0.2g, $1.60 **B**=0.4g, $2.80 **C**=1g, $5.00 **D**=2g, $7.50 **E**=10g, $30.00

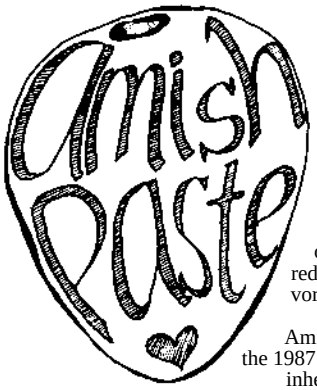
**4137NO Orange Banana OG** (85 days) Ind. I never would have believed that the best tomato sauce comes from an orange tomato. But the proof is in the eating and Orange Banana has been the perennial winner of our annual paste taste-offs. Comments from tasters include, "the best flavor and sweetness yet, wow!" and "gourmet candlelight." No wonder Banana has become a staple of David's famous tomato sauces. Its sprightly sweet flavor, reminiscent of Sun Gold but with more depth and diverse tones, makes an ambrosial sauce by itself and adds a vivid fruity complexity to any sauce with other tomato varieties. Erica Myers-Russo in CT grows it exclusively for drying. She claims it "makes the sweetest dried tomatoes ever." Attractive cylindrical orange fruits 3–4" long average 4–5 oz. Susceptible to blossom-end rot. Originally offered by Moscow seedswoman Marina Danilenko in the 1996 Seed Savers Yearbook. MOFGA-certified. ①

**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00

**4138RO Speckled Roman OG** (85 days) Ind. Back by popular demand, John Swensen's psychedelic-looking creation ranked near the top in our 2005 sauce test for its rich tomatoey sweetness and good texture. Roman's red cylindrical fruits are covered with orange-yellow striations, something like an Amish Paste with stripes from an Orange Banana. The actual parents are Antique Roman and Banana Legs, and the fruits have the distinctive nipple of the latter. Plants bear an early abundance of meaty 4–5 oz fruits. *Susceptible to disease in cool wet seasons.* OT-certified. ①



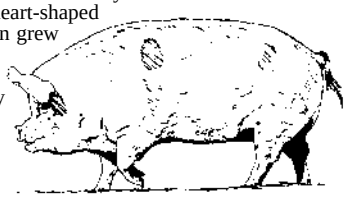
**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00




**4140AO Amish Paste OG** (85 days) Ind. Always one of the most popular items in the Seed Savers Exchange. Listed members' comments tell all: "large red meaty fruit," "wonderful paste variety," "great flavor for cooking, canning or fresh eating," "the standard by which I judge canning tomatoes," "huge production," "great for sauces, salsa, canning." Strong producer of oxheart fruits up to 8 oz with thick bright red flesh. Larger and better than Roma. Flavor has been consistently good even in poor tomato years. Wisconsin heirloom from Amish farmers in the 1870s, first surfaced in the 1987 SSE Yearbook. We have observed some inherent variation, based on how this variety responds to its environment. Needs room and good nutrition to set mostly nippled fruits. Crowding, shading or stress cause reduced fruit size and less nippling. Boarded Slow Food's Ark of Taste. MOSA-certified. ②

**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00

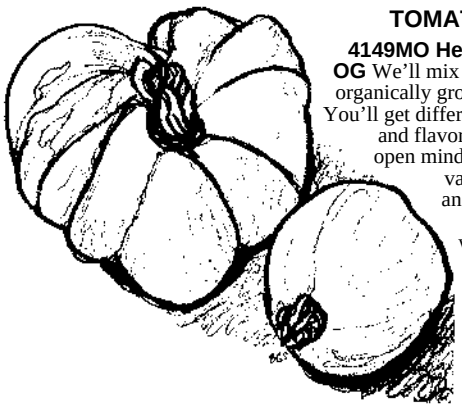
**4141HO Hog Heart OG** (86 days) Ind. Brought from Italy to Massachusetts, probably between 1910 and 1920, and then by Susan Eastman and Ed Lacy of Gray, ME, to the Exhibition Hall at the 1988 Common Ground Fair, Hog Heart has won many admirers. So-named because it sometimes produces large heart-shaped double fruits. Staffer Elisabeth Benjamin grew a triple in 2013 that weighed 3 lb 7 oz! More often, though, its 6–8 oz tomatoes are shaped like banana peppers. A meaty paste tomato noted for its sparse seed cavity, good solids and excellent flavor fresh, canned or frozen. It is late for extreme northern areas and some fruits catface. "For my money the best paste tomato going," says Amy LeBlanc. ☙1999. VOF-certified. ①



**A**=0.2g, $1.40 **B**=0.4g, $2.40 **C**=1g, $3.80 **D**=2g, $6.60 **E**=10g, $22.00

**4146BO Blue Beech OG** (90 days) Ind. This large elongated paste tomato won our sauce test in 1997, besting several well-known varieties. We received seed from Annette Smith of Blue Beech Farm in Danby, VT, and have named the variety in honor of her farm. Smith got the tomato from her neighbor's niece's uncle who brought it to Vermont from Italy during World War II. This Roma type has been acclimated in chilly Vermont for the last 50 years, so it is better adapted to cold climates than Roma. Some years it makes a richly textured sweet sauce that's just brimming with flavor. Fruits, not very seedy, averaging 6–8 oz, often have green shoulders. Needs long season, but our increasingly mild extended falls have facilitated ripening. All seed is held over with 90% germ. ☙1999. WA-certified. ①

**A**=0.2g, $1.60 **B**=0.4g, $2.80 **C**=1g, $5.00 **D**=2g, $8.00



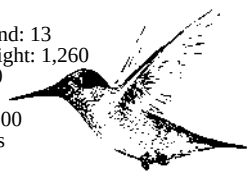
### TOMATO MIX

**4149MO Heirloom Tomato Mix OG** We'll mix a bunch of varieties (all organically grown seed) in one packet. You'll get different colors, sizes, shapes and flavors (no cherries). With an open mind, a good sense of observation, unjaded taste buds and acute deductive faculties, you can figure out which ones you like and order them by name next year.

**A**=0.2g, $1.40
**B**=0.4g, $2.40
**C**=1g, $3.80
**D**=2g, $6.60
**E**=10g, $22.00

**Hummingbird Index**

Number of hummingbird species in the world: 330
Number in the US: 19
Number of licks a hummingbird can take in a second: 13
Number of heartbeats per minute when in active flight: 1,260
Top speed of a hummingbird, in miles per hour: 60
Wingbeats per second when hovering: 80
Wingbeats per second for male's mating display: 200
Minimum number of North American plant species specialized for hummingbird pollination: 150
Weight of the Bee Hummingbird (*Mellisuga helenae*), the smallest bird in the world: 0.106 ounces
Weight of the so-called Giant Hummingbird (*Patagona gigas*): 0.85 ounces
–from Texas A&M Horticulture Extension



## Hybrid TOMATOES

**4207JT Juliet** (60 days) Ind. There will be no lack of Romeos who want to nibble on these and no lack of the delectable little plum-shaped fruits for them to adore. They come in clusters everywhere, each truss bearing 6–8 of the 1–2 oz grapes for an astonishing total of 50–80 glossy red fruits per plant. With an engaging sweetness, they make good stewing tomatoes, excellent salad tomatoes, and, despite their juiciness, a tangy sauce with a diverse complex richness and full sweet tomato flavor. Lynn Sagalyn of Philadelphia reports that "Juliet is my favorite tomato for drying. Cut them in half, flip out the seeds and dehydrate…They are like tomato 'raisins'—chewy and sweet to just eat, put on pizza, or add some red to a winter stir-fry." This 1999 AAS winner is firm enough to hold on the vines for up to two weeks, crack resistant, tolerant to EB and LB, and fairly invulnerable to insect or slug damage. ③

**A**=0.2g, $2.70 **B**=0.4g, $5.20 **C**=1g, $12.00 **D**=2g, $22.00 **E**=4g, $42.00

**4211PM Premio** (60 days) Ind. A primo early cluster tomato and a centerpiece for my new global warming tomato strategy *sans* hoophouse: to depend on the new generation of flavorful cluster hybrids such as Premio and **4225** Mountain Magic for September production after rains and blights have beaten down my favored heirlooms. Delicious Premio gets that job done—between Aug. 31 and Sept. 14, 2012, I harvested 97 of its perfectly round red uniform thick-skinned almost 4 oz fruits from just two plants. These ripen 4–8 to a cluster, firm but juicy and refreshing with nice texture, sweetness and flavor and awesome holding quality in the field. Cascades of them keep coming and coming. First ripe fruit for Donna Dyrek was Aug. 10 in 2011, a bit later for me in 2012. ⑤

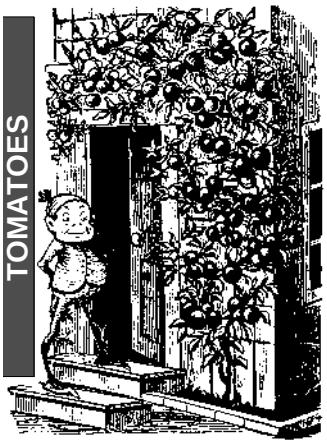
**A**=0.1g, $2.50
**B**=0.2g, $4.80
**C**=0.4g, $9.50
**D**=1g, $22.00
**E**=4g, $80.00

**4218BC Bobcat** (65 days) Det. This cat replaced Seminis/Monsanto's Big Beef, boasting the same impeccable looks, disease resistance, slightly flattened round shape, 6–10 oz maincrop size, thin skins, midseason maturity and medium red color, ideal attributes for commercial growers. A massive plant with huge leaves, thick strong stems and big fruit set. From an April 4 start and June 11 transplanting, our trialer harvested her first ripe fruit on Aug. 15. Its mild flavor with a spicy sweet accent is too bland to please home gardeners seeking heirloom complexity, so we are trialing for a versatile replacement. Three lots of held over seed germ at a minimum of 85%. Resists F1, F2, GLS and N. Susceptible to SEPT. ⑤

**A**=0.1g, $2.20 **B**=0.2g, $4.20 **C**=0.4g, $8.00 **D**=1g, $16.00 **E**=4g, $60.00

**4225MM Mountain Magic** (69 days) Compact Ind. NC State University's Emeritus Professor Randy Gardner would be at the top of any list of elite plant breeders. Gardner, who "retired" in 2008 after 32 years, is still adding to his impressive oeuvre of 22 superb tomato varieties, most bearing his signature prefix 'Mountain.' He was among the first to take up the heirloom challenge to breed flavor into his hybrids, and he is among the first to combat LB. Mountain Magic, with grape tomato in its parentage, does both. Even in my unstaked unpruned overcrowded tomato jungle, his unblemished round crack-free two-bite red fruits stood long. Almost all were marketable, growing in clusters of 7 or 8, 10–11 to the pound. As for production: rousing. During a 15-day period beginning Aug. 31, 2012, I harvested 106 fruits—all but three perfect—from a single plant. Juicy with a rich sprightly flavor that greatly pleased and refreshed me. Sums Bryan O'Hara, "Holy winner! Great vigor and disease resistance, high yields, great sweet flavor...you've got a *great* one." Resists LB, V, F1-3 with tolerance to EB. ~480 seeds/g, 9-10/pkt. ④

**A**=0.02g, $3.80 **B**=0.04g, $7.20 **C**=0.08g, $13.00 **D**=0.2g, $28.00 **E**=1g, $110.00

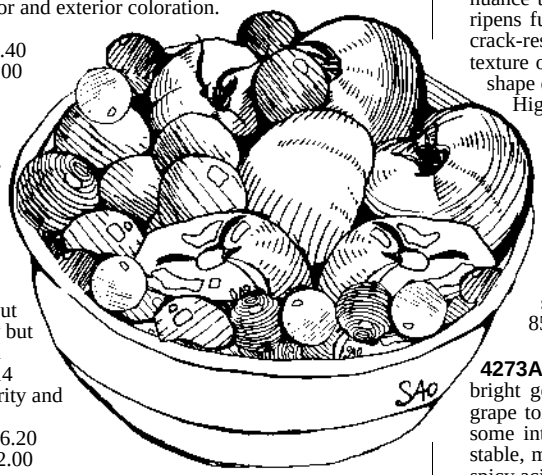


**4230SS Spring Shine** (71 days) Ind. Our customers never took a shine to this early tomato so *this is the last year we will offer*. Outstanding in our grow-outs, setting 5 oz deep red globes in clusters with 4–6 fruits per branch showing a pleasing mix of acids and sugars that brought high taste ratings even in the subpar tomato year of 2008. First ripe fruit was Aug. 14 for Dyrek, Aug. 16 for me—ahead of most of the pack. Develops green shoulders. All seed is held over; 88% germ. ③

**A**=0.2g, $1.30 **B**=0.4g, $2.40 **C**=1g, $3.60 **D**=2g, $5.50

**4233JS Jet Star** (72 days) Compact Ind. As hybrids go, Jet Star has been around for a long time. The 1979 Harris catalog reported, "Our Jet Star met with as great a reception as any introduction we ever offered." Almost 30 years later it remained their best-selling hybrid tomato. In a test of 16 commercial varieties grown in high tunnels at Highmoor Farm, it had the highest yield of total marketable and premium-quality fruit. The University of Maine Food Lab also rated it the top greenhouse tomato. Year after year it was the best early full-sized tomato in our trials, ripening prolific quantities of cosmetically perfect 7–8 oz globes with outstanding flavor. The smooth firm fruits almost never scar or crack and have excellent interior and exterior coloration. Resistant to F1 and V. ⑤

**A**=0.2g, $2.30 **B**=0.4g, $4.40 **C**=1g, $10.00 **D**=2g, $18.00 **E**=4g, $35.00



**4236HT Heather** (73 days) Compact Ind. Replaced Seminis/Monsanto's Celebrity, four days earlier and bettering it in our taste test while matching it in looks. Round, red medium-sized 6–8 oz fruits with a balanced sweet and tart flavor that is uncommon in hybrids. Skins good and firm but without toughness. Fruits juicy but not watery. Ripened for Donna Dyrek Aug. 15 from an April 14 start. Not as vigorous as Celebrity and susceptible to SEPT. ③

**A**=0.1g, $3.20 **B**=0.2g, $6.20 **C**=0.4g, $11.50 **D**=1g, $22.00 **E**=4g, $80.00

**4238LO Luci 2103 OG** (73 days) Ind. Replacing Buffalo in our greenhouses, uniform productive 6 oz Luci was the first of its class to ripen in our trial, setting about 10 clusters, each with 3–4 fruits. We loved Luci for its earliness, uniformity, high yields and disease resistance. Red fruits are flavorful, mild, juicy, a little mealy, rarely crack, never have green shoulders. Beautiful sturdy vigorous healthy plants show good leaf cover. Supplier is discontinuing; *this is the last year we will offer*. No new crop; all seed is held over, all 3 lots test in the nineties. AGRIOR-certified. ③

**A**=0.1g, $2.10 **B**=0.2g, $4.00 **C**=0.4g, $6.60 **D**=1g, $15.00

## Hybrid CHERRY TOMATOES

**4252SG Sun Gold** (57 days) Ind. To quote one customer, "Without these little babies, there's *no summer*." A perfect combination of deep sweetness with a hint of acid tartness, so good that for almost a decade it took away our incentive to trial cherry tomatoes because no others could match it. In a field replete with choices, Eli and I are drawn to Sun Gold like candy. What *is* its elusive alluring tang? In 2012 we finally reached surfeit, quart after quart gracing our tables from July 2 through September. This year we struggled to have enough as it gallantly tolerated LB, only to succumb in the end. Small fruits averaging 8.2g, borne in prolific clusters, ripen very early to a rich apricot color and keep producing till frost. Very prone to split so pick early when rains are forecast. Brix 8. Resists F1, TMV. ⑤

**A**=0.1g, $3.20 **B**=0.2g, $6.20 **C**=1g, $29.00 **D**=2g, $56.00 **E**=4g, $110.00

**4253JO Jasper OG** (60 days) F-1 hybrid. Ind. (60 days) Just what you think of when you think cherry tomatoes—deep red globes on small clusters. The small one-bite round fruits average 7.2 grams and deliver a pleasing instant juicy sweetness that keeps you coming back for more. Though sitting in the epicenter of my LB infestation, these vigorous vines defied it and cranked out pint after pint of perfect delectable fruits. These almost never cracked and held quality a long time in the field. Very early, very prolific, very disease resistant. No wonder they won an AAS award in 2013 for Johnny's. I was harvesting them in a cold summer by mid-August even though I did not start my seedlings till April 8. They will be my cherry tomato insurance policy in the future. MOFGA-certified. ③ **NEW!**

**A**=0.02g, $3.60 **B**=0.04g, $7.00 **C**=0.08g, $13.00 **D**=0.2g, $28.00 **E**=1g, $115.00

**4254ST Sweet Treats** (75 days) Ind. Unique among cherry tomatoes for its phenomenal flavor and incomparable gorgeous deep ruby color with matte finish at peak ripeness. Roberta said, "These are as close in taste to a full-size tomato as I've ever eaten, with a complexity and balance of sweetness and flavor, low acid and mellow. My vote is a resounding yes at any price." Royalston, MA, market grower Larry Siegel's endorsement was more restrained: "Large indeed. Plentiful indeed. Handy for bulking up my containers of mixed cherries for market. But seemed to take forever to change from pink to deep rose and while tolerant to cracking they are not resistant." Large fruits (20–30g) come in clusters of 12–15 per truss. Perfect for salads and snacking. Ripens from pink to deep rose. Wait for full color to harvest. Brix 8–9. All seed is held over at 93% germ. Resistant to TMV0,1, F1,2 and leaf mold. Tolerant to GLS, crown and root rot. ~400 seeds/g, 8 per packet. ⑤

**A**=0.02g, $3.60 **B**=0.04g, $6.80 **C**=0.08g, $12.00 **D**=0.2g, $24.00 **E**=1g, $100.00

**4256SW Super Sweet 100** (78 days) Ind. Like Sweet 100, only with more disease resistance. Very popular hybrid cherry tomato ripens clusters of 1" round sweet fruits. Should be staked. Will split in rainy conditions. All seed is held over, germs 92%. Resistant to V and F1. ⑤

**A**=0.2g, $4.20 **B**=0.4g, $8.20 **C**=1g, $20.00 **D**=2g, $38.00 **E**=4g, $72.00

## Hybrid GRAPE TOMATOES

**4266HB Honey Bunch Red Grape** (62 days) Ind. I've never been fond of grape tomatoes, but I'll make an exception for this honey bunch. No complexity here, just a luscious over-the-top sweetness with a honeyed nuance that could be habit-forming. For maximum enjoyment, wait until it ripens fully to a bright red in the field. That's easy because they are very crack-resistant and seem to hold field quality forever. Our trialers loved the texture of these bright red 8–14g 1x1½" fruits, the size of cherries, but the shape of grapes. "Like small Juliets," they said. Broad tomato-leaf foliage. High-yielding vigorous vines are tolerant to EB. Brix 9. ③

**A**=0.1g, $4.10 **B**=0.2g, $8.00 **C**=0.4g, $15.00 **D**=1g, $35.00 **E**=4g, $135.00

**4271LU Lucia** (64 days) Ind. Everyone in our taste test kept coming back for more of these super crunchy red grapes. The consensus: these diminutive 5–8g sweet fruits can boast some tartness and complexity. They "taste like a red Sun Gold." Unlike Sun Gold, they have some crack resistance, vulnerable only in cold wet weather. Starting very early, Lucia cranks out tons of bright red fruits great in salads, on pizzas or in sauces. Brix 7.5. Two lots of seed held over at 85% or higher. ③

**A**=0.1g, $5.60 **B**=0.2g, $11.00 **C**=0.4g, $20.00 **D**=1g, $48.00

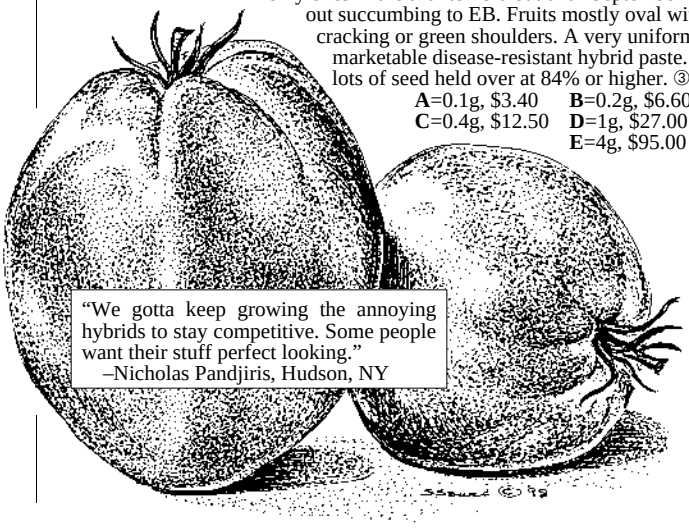
**4273AY Aria** (68 days) Listed as a yellow pear last year, these sweet bright golden-yellow oblong fruits averaging 15.5g belong instead in the grape tomato family. Firm but not tough skins that resist cracking conceal some interior tenderness. Aria's flavor never strikes a false note, smooth, stable, meaty, neither stunning nor dull, but good. Sweet, fruity with a little spicy acid undertone, but not at all juicy. Seedlings were quite spindly but all save one recovered to good vigor. Somewhat late and slow to ripen but productive once it got going. In a year lacking heat units, first ripe fruit from a late transplanting was Aug. 29. Most years would be significantly earlier. Suitable for high tunnel production. All seed is held over, tested 90%. ③

**A**=0.1g, $3.20 **B**=0.2g, $6.20 **C**=0.4g, $11.50 **D**=1g, $22.00 **E**=4g, $80.00

## Hybrid PASTE TOMATO

**4293SD San Diego** (64 days) Det. "Just what you want in a paste tomato," exclaims Adam Tomash. "It keeps putting out good-tasting tomatoes for a long time." Won our paste test of determinate hybrids, producing 30 scarlet-red 2½ oz fruits that began ripening during the third week of July in 2011. Most had ripened by Aug. 10, and the plants were the only ones in the trial to hold out until September without succumbing to EB. Fruits mostly oval without cracking or green shoulders. A very uniform and marketable disease-resistant hybrid paste. Two lots of seed held over at 84% or higher. ③

**A**=0.1g, $3.40 **B**=0.2g, $6.60 **C**=0.4g, $12.50 **D**=1g, $27.00 **E**=4g, $95.00



"We gotta keep growing the annoying hybrids to stay competitive. Some people want their stuff perfect looking."
–Nicholas Pandjiris, Hudson, NY

# VEGETABLE PLANTING GUIDE

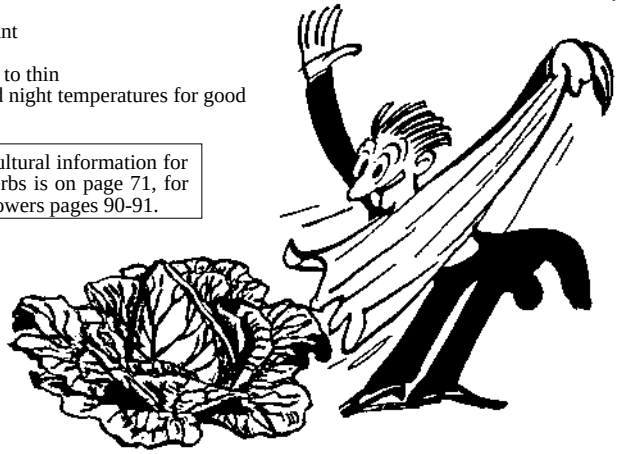
| Vegetable | Catalog # range | avg. sds/oz | sds/100' | Pkt plants | distance apart | thin to | row spacing | seed depth | min soil temp °F | ideal soil temp | hardiness | planting dates |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Artichoke | 3608 | 560 | T | 10 pl | 3' | No | 2' | 1/2" | 60 | 65-85 | MH | tp late |
| Arugula | 3020-29 | 15000 | 3g | 60' | 1" | 4" | 18" | 1/4" | 50 | 65-85 | MH | May 1/Aug 1 |
| Asian Greens, assorted | 3200-23 | 5000-15000 | varies | | | | | 1/4" | 50 | 65-85 | MH | early May |
| Basil | 4414-4470 | 18000 | 5g | 10-80' | 1/2" | 4" | 18" | 1/4" | 65 | 70-85 | VT | June 1 |
| Bean, Bush, Dry | 200-79,326-90 | 90 | 8 oz | 25' | 3-4" | No | 2-3' | 1" | 60 | 60-80 | T | late May |
| Bean, Fava | 298-99 | 17 | 1# | 12' | 3-4" | No | 2-3' | 1" | 40 | 40-75 | H | ASAP |
| Bean, Lima | 323-325 | 60 | 1# | 40-60' | 4-6" | No | 3' | 1" | 60 | 70-85 | VT | late May |
| Bean, Pole | 280-97, 318, 322, 325, 371 | 65 | 6 oz | 10 pl/oz | 6/pole | 3/pole | 3-4' | 1" | 60 | 60-80 | T | late May |
| Bean, Soy | 480-99 | 80 | 5 oz | 10' | 3" | No | 3' | 1" | 60 | 70-90 | T | June 1 |
| Beet | 2100-99 | 2200 | 5/8 oz | 20' | 1" | 2-4" | 12-18" | 1/2" | 40 | 60-85 | H | Apr-July |
| Broccoli | 3300-29 | 5000-8000 | 5g | .5g=10' | 1" | 24-30" | 30" | 1/4" | 50 | 65-85 | MH | tp May/June |
| Brussels Sprouts | 3330-49 | 5000 | 5g | .5g=10' | 1" | 24-30" | 24-30" | 1/4" | 50 | 65-85 | H | tp May/June |
| Cabbage | 3350-99 | 6000-7000 | 5g | .5g=10' | 1" | 24-30" | 24-30" | 1/4" | 40 | 55-95 | MH | tp May/June |
| Carrot | 2000-99 | 18000 | 10g | 1/8oz=35' | 1/4"-1/2" | 1" | 16-24" | 1/2" | 40 | 60-85 | H | Apr-July |
| Cauliflower | 3400-40 | 6000-7000 | 4g | .5g=12' | 1" | 30" | 30-36" | 1/4" | 40 | 55-80 | MH | tp May/June |
| Celery/Celeriac | 3610-49 | 75000 | T | 500 | 8" | No | 2-3' | 1/8" | 40 | 59-70* | T | tp June 1 |
| Chard | 3030-42 | 800-2000 | 1 1/2 oz | 5-13' | 1" | 3-6" | 18-24" | 1/2" | 40 | 50-85 | H | ASAP |
| Chicory | 3046-48 | 16000 | T | 300 pl | 1' | No | 2' | 1/8" | 50 | 60-85 | H | tp late June |
| Chinese Cabbage | 3224-25 | 9500 | 1/4 oz | 25' | 1/2" | 12-18" | 24-30" | 1/4" | 50 | 70-95 | MH | late May or tp |
| Corn, OP | 500-699 | 100 | 4 oz | 50' | 3" | 1' | 3' | 1" | 50 | 60-95 | T | late May |
| Corn, hybrid | 500-699 | 155 | 4 oz | 50' | 3" | 1' | 3' | 1" | 50 | 60-95 | T | late May |
| Cress | 3050-58 | 9000 | 3g | 50-70' | 1/2" | 1-2" | 18" | 1/4" | 50 | 65-85 | MH | May 1 |
| Cucumber | 1200-1399 | 1000 | 1/2 oz | 11' | 2" | 4" | 3-4' | 1/2" | 60 | 65-95 | VT | June 1 or tp |
| Eggplant | 3650-91 | 7000 | T | 40 pl | 20-30" | No | 30-36" | 1/4" | 60 | 75-90* | VT | tp early June |
| Endive | 3060-92 | 18000 | 5g | 40' | 1" | 8" | 18-24" | 1/4" | 50 | 60-85 | H | Apr-July |
| Gourds, large | 1960-99 | 175 | T | 20 pl | 6/hill | 2-3/hill | 6' | 1/2" | 60 | 70-90 | T | tp early June |
| Gourds, small | 1900-59 | 500 | 1/5 oz | 10 hills | 6/hill | 3/hill | 4-6' | 1/2" | 60 | 70-90 | T | late May |
| Kale/Collards | 3441-69 | 6000-7000 | 5g | 1g=20' | 1" | 12" | 2' | 1/4" | 50 | 65-85 | VH | ASAP-July |
| Kohlrabi | 3470-79 | 6000 | 4g | 1g=25' | 1" | 24" | 24" | 1/4" | 50 | 65-85 | MH | tp May/June |
| Leek | 2400-29 | 9000 | T | 1g=320 pl | 8" | No | 2' | 1/2" | 50 | 60-70 | MH | tp May 1 |
| Lettuce | 2700-2999 | 25000 | 4g | 1g=25' | 1/3" | 1' | 12-18" | 1/8" | 35 | 40-80 | H | ASAP-Aug |
| Mâche | 3100-19 | 17000 | 1/4 oz | 25' | 1/2" | 2" | 18" | 1/4" | 48 | 50-68 | VH | ASAP-Aug |
| Melon | 900-999 | 960 | T | 12-20 hills | 3/pot | 2/hill | 5' | 1/2" | 60 | 75-95 | VT | tp early June |
| Mustard | 3228-59 | 15600 | 1/8 oz | 40' | 1" | 4-6" | 2' | 1/4" | 50 | 65-85 | MH | Apr-Aug |
| Okra | 3695-99 | 420 | T | 30 pl | 12" | No | 2-3' | 1/4" | 60 | 70-90 | VT | tp early June |
| Onion/shallots | 2440-99 | 7000 | T | 450 pl | 4" | No | 12-18" | 1/2" | 50 | 60-70 | MH | tp May 1 |
| Pac Choy | 3260-73 | 12500 | 1/4 oz | 14-25' | 1/2" | 6-12" | 2' | 1/4" | 50 | 70-95 | MH | May or tp |
| Parsley | 3155-79 | 14000 | 1/4 oz | 25' | 1/4" | 1" | 12-18" | 1/4" | 40 | 50-80 | VH | Apr-Aug |
| Parsnip | 2305-10 | 7000 | 1/2 oz | 25' | 1/2" | 2-3" | 12-18" | 1/2" | 46 | 55-77 | VH | Apr-July |
| Pea | 700-899 | 125 | 8 oz | 25' | 1 1/2" | No | 3-5' | 3/4" | 40 | 50-75 | plants H | ASAP |
| Pea for fall crop | 700-899 | 125 | 8 oz | 25' | 1 1/2" | No | 3-5' | 3/4" | 40 | 50-75 | blossoms,pods T | July |
| Pepper | 3700-3899 | 4500 | T | 10-50 pl | 12-18" | No | 2-3' | 1/4" | 60 | 68-95 | VT | tp early June |
| Perilla (Shiso) | 3282-83 | 14000 | T | 150 pl | 8-12" | No | 18-24" | 1/4" | 65 | 68-75 | VT | tp early June |
| Pumpkin | 1700-99 | 100-280 | 1/2-1oz | 3-8 hills | 5/hill | 3/hill | 6' | 1" | 60 | 70-90 | T | late May |
| Radicchio | 3186-91 | 19000 | 1/2 oz | 5-30' | 1" | 8-10" | 18" | 1/8" | 50 | 60-85 | H | late June |
| Radish | 2200-99 | 2500 | 1 oz | 12' | 1/2" | 2" | 18" | 1/2" | 40 | 55-85 | H | Apr-Aug |
| Rutabaga/Turnip | 2350-99 | 9000 | 1/3 oz | 40' | 1/2" | 3-6" | 18" | 1/4" | 40 | 60-95 | H | Apr-July |
| Salsify/Scorzonera | 2318-22 | 2000 | 5/8 oz | 20' | 1" | 2" | 18" | 1/2" | 50 | 65-85 | H | Apr-Jun |
| Spinach | 2500-99 | 1400-2600 | 1/2 oz | 40' | 1" | 2" | 12-18" | 1/2" | 35 | 45-65 | VH | ASAP |
| Spinach, fall crop | 2500-99 | 1400-2600 | 1/2 oz | 40' | 1" | 2" | 12-18" | 1/2" | 35 | 45-65 | VH | Aug |
| Squash, patty pan | 1577-90 | 200-320 | 5/8 oz | 5-8 hills | 5/hill | 2-3/hill | 4' | 1" | 60 | 70-90 | T | late May or tp |
| Squash, winter | 1600-99 | 120-450 | 1/2-2 oz | 3-15 hills | 5/hill | 3/hill | 4-6' | 1" | 60 | 70-90 | T | late May or tp |
| Squash, summer | 1400-1599 | 160-320 | 1/2 oz | 5-8 hills | 5/hill | 2-3/hill | 4' | 1" | 60 | 70-90 | T | late May or tp |
| Tomato | 4000-4299 | 9000 | T | 6-125 pl | 3' | No | 3' | 1/4" | 50 | 60-85 | T | tp June 1-10 |
| Watermelon | 1000-1099 | 670 | T | 7-14 hills | 3/pot | 2/hill | 5' | 1/2" | 60 | 75-95 | VT | tp early June |
| Zucchini | 1400-79 | 180 | 1 oz | 4-6 hills | 5/hill | 2-3/hill | 4' | 1" | 60 | 70-90 | T | late May or tp |

**Abbreviations** Pkt plants=how many row feet or hills our smallest packet will plant
T=transplanted only, in our climate.
tp=transplant pl=plants g=grams, 28.4g=1oz. No=not necessary to thin
*Celery and some varieties of eggplant require fluctuating day and night temperatures for good germination.

**Hardiness rating** VT=very tender: will not survive frost, can be damaged by temperatures under 40°
T=tender: will not survive frost
MH=moderately hardy: survives light frosts
H=hardy: survives frost generally to the low twenties
VH=very hardy: will overwinter if protected

**Approximate planting date:**
ASAP=as soon as ground can be worked, does not thrive in heat
Approximate planting dates are for *our* Central Maine climate. Please make appropriate adjustments for your climate, using hardiness as a guide.

Cultural information for herbs is on page 71, for flowers pages 90-91.



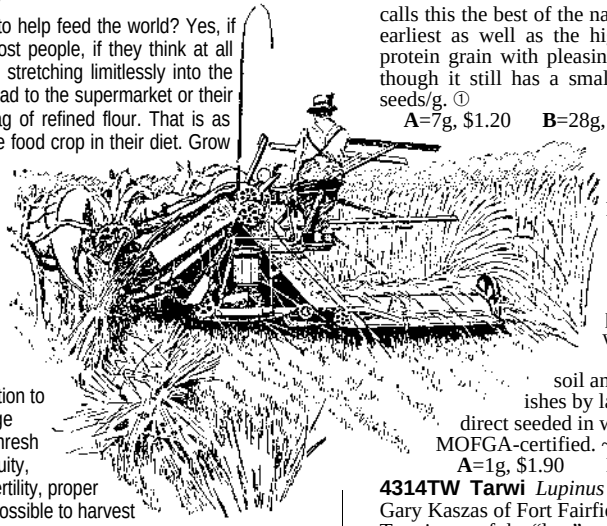
**Notes:** Seed counts are provided as a *guide*, not a *guarantee*. They vary from cultivar to cultivar. Planting rates will vary if intensive methods such as beds are used. Minimum soil temperatures are the lowest that will permit *any* germination. Expect slow spotty germination if you plant below or above the ideal range. For a good stand and quickest emergence plant as close to the middle of the ideal range as possible. If you have specific cultural questions, consult more detailed resources or get in touch with us.

A few seeds with unusually thick or hard coatings may benefit from **scarification** just before sowing. This is accomplished by nicking them with a knife, a pinpoint or lightly scratching them with sandpaper.

Some seeds need to be **stratified** before sowing. This tricks the seed by thinking it has gone through winter followed by the gradual warm-up of spring. It is accomplished by first moistening and then chilling the seed for a specified period of time.

# GRAINS

Can sustainable agriculture do its fair share to help feed the world? Yes, if we begin by re-thinking basic paradigms. Most people, if they think at all about wheat, imagine amber waves of grain stretching limitlessly into the Kansas horizon. Or, more practically, they head to the supermarket or their co-op or health food store to purchase a bag of refined flour. That is as close as they get to the most important staple food crop in their diet. Grow it here in Maine in our backyards or on our homesteads?! Impossible, unthinkable, totally impractical! Or so we think. Yet, in the early 1800s Maine was the breadbasket of the United States.



Although some of these annuals are decorative both in form and colors, making great accents for bouquets, wreaths, etc. and worthy of being grown for that reason alone, the revived interest in food security and sovereignty demands more. We offer this section to shatter the myth that these crops demand huge space, that they are difficult to grow, hard to thresh and therefore, uneconomic. With a little ingenuity, none of that is true. For example, with good fertility, proper spacing and reasonable diligence, it is quite possible to harvest 10 lb of heirloom wheat from 100 plants in just a small 10x10' plot, enough for ten loaves of bread. In a 30x30' plot you could harvest enough for two loaves of bread a week for the entire year. As for threshing? For garden or homestead quantities Eli Rogosa suggests cutting the heads off and doing The Twist over them on an upside-down car mat. For larger harvests she uses a foot treadle–powered thresher.

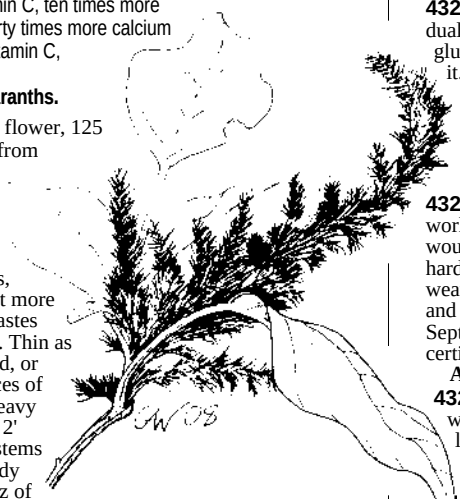
A 100' row of rice yields 6–10 lb. And yes, rice can be grown in a garden without flooding or building a paddy. A 100' row of barley yields 2–4 lb, of oats 4–5 lb and of rye 6–7 lb. Grown in rows within beds, grains produce more tillers and more grain with fatter heads.

The selections here are rarely available heirloom varieties especially designed for small- or homestead-scale production. Larger-scale growers and farmers, or those seeking larger quantities of more mainstream varieties, should check out the list in our OGS Farm Seed section beginning on page 120.

## **Amaranth** *Amaranthus hybridus*

Amaranth was one of the Aztecs' five principal crops. They ground puffed seeds into flour and prepared sauces with the leaves. Amaranthus grain has 14–16% protein. The leaves have three times more vitamin C, ten times more carotene, fifteen times more iron and forty times more calcium than tomatoes, and three times more vitamin C, calcium and niacin than spinach leaves.

**See 4831-4837 for ornamental amaranths.**



**4300OO Opopeo OG** (65 days to flower, 125 days to seed) The grain of the gods from Opopeo, Mexico. Doubles as a wonderful green until flower-set. Tom Vigue sows thickly after frost danger, enjoying the bronze-green leaves from 4–6" and the top leaves until the plant reaches 2'. Vigue says, "Never stringy, always tender…a lot more massive than spinach," to which it tastes similar when cooked. Not great raw. Thin as you go to grow grain in the same bed, or start as transplants to increase chances of beginning your harvest before the heavy autumnal rains. Huge plants require 2' spacing. Opopeo's magenta purple stems grow 4–8' topped by 2' deep burgundy flower spikes each laden with 4–8 oz of seed grain. Grain matures from early to mid October. Cut and hang the heads to dry inside rather than field-curing in wet autumns. Wait until grain is crumbly dry and then rub against a mesh screen to thresh. Store your grain securely; mice love it. Boil two parts water to one part grain for a high-protein gluten-free breakfast cereal or mix with pumpkin meal, vegetables and herbs, allow to harden, and slice into fryable patties. Multi-branched plants prone to lodging in loose soils, otherwise may offer support to pole beans when given a head start. WA-certified. ~1200-1500 seeds/g. ①

**A**=1g, $1.70 **B**=4g, $5.40 **C**=16g, $12.00

**4302BH Burbank Hulless Barley ECO** *Hordeum vulgare* We welcome the return of this historic 6-rowed barley which until recently had been unavailable since Luther Burbank sold it in 1926. Burbank selected it from California Hulless barley and gave it his name. Recommended by Will Bonsall for its tall heavy stalks that allow it to stay erect without lodging. Golden plump grains with a rich nutty flavor and 14% protein content. Has awns. Sown at 6" spacing rather than broadcast, our packet will cover a 200 sq ft bed with 600–800 plants likely, based on Bonsall's experience, to yield 5–8 lb of seed. ~885 seeds/oz. Short crop. *Order early.* **BACK!**

**A**=28g, $3.20

**4309TO Terra Hulless Oats OG** *Avena nuda* (100 days) Will Bonsall calls this the best of the naked oats, the one to grow to eat. It is probably the earliest as well as the highest yielding with the largest seed. This high-protein grain with pleasing flavor is easier to thresh than most other oats, though it still has a small hull that must be removed. ICS-certified. ~35 seeds/g. ①

**A**=7g, $1.20 **B**=28g, $4.00 **C**=112g, $10.00 **D**=448g, $25.00

**4312RO Duborskian Rice OG** *Oryza sativa* (115 days from transplant) Grow rice in Maine! Roberta Bailey acquired this short-grain hardy Russian variety from Seed Savers Exchange member Anpetu Oihankesni of Colorado. Well adapted to dry-land production (no flooding necessary), sturdy plants resist lodging, grow to 20–24" producing 12–18 tillers per plant, each bearing a rice pannicle. Start indoors in 70–85˚ temperatures 4–5 weeks before setting out into warm soil (early June in Maine). Space plants 10–12" apart in rich moist soil and full sun. Heads the first week of August and finishes by late September. Can withstand a light frost. May be direct seeded in warmer regions. Seed crop grown in central Maine. MOFGA-certified. ~35-40 seeds/g. ①

**A**=1g, $1.90 **B**=4g, $5.60 **C**=28g, $28.00 **D**=112g, $98.00

**4314TW Tarwi** *Lupinus mutabilis* (130 days, longer to seed) We thank Gary Kaszas of Fort Fairfield, ME, for providing us with the impetus to offer Tarwi, one of the "lost" crops of the Incas. Years ago he sent us seeds he had accessed from the USDA seed bank for this wild-looking 3' lupine native to the high Andes. In our trials, we were first attracted to its flowers, mostly mountain-sky blue with yellows, reds and whites interspersed. Later we learned that Tarwi, more than just a beautiful ornamental plant, is potentially an important food crop. With a full range of essential amino acids and more than 40% protein, its luminous pearly-white bean-like seeds (2–6 per pod) surpass soybeans nutritionally. They do require a long season to mature, and must be soaked and rinsed repeatedly to leach out their bitter alkaloids to make a palatable food, somewhat akin to barley in texture and taste. Start the seed indoors, because the young plants are frost sensitive. Even if you lack either the climate or the dedication to grow the plants to seed, all is not lost. These leguminous beauties grow in poor soil and attract beneficial insects with their honey-scented flowers, fixing nitrogen all the while. ~13 seeds/2g packet. ✿ **NEW!**

**A**=2g, $2.60 **B**=6g, $7.50 **C**=18g, $18.00 **D**=54g, $40.00

**Bravehart Spring Triticale** *Triticum* x *Triticosecale* Dropped for slow sales. *No longer available.*

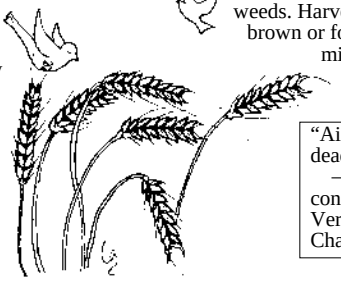
**4322BO Black Eagle Spring Wheat OG** *Triticum aestivum* A stunning dual-purpose spring wheat, standing 3' tall in the field with black and white glumes and crisp 3–4" black awns that wowed Nikos the first time she saw it. Harvest early for best ornamental value as its striking color weakens the longer the plants stand in the field. Later, as the kernels fill out and redden, gather the sheaves to thresh, winnow and bake. A 6-row wheat with good straw strength and average yield. Seed originated from Thumbs Heath of the Seed Savers Exchange. ID-certified. ~23 seeds/g. ①

**A**=7g, $1.20 **B**=28g, $3.00 **C**=112g, $5.00

**4324UO Utrecht Blue Spring Wheat OG** *T. durum* This may be the world's most beautiful wheat (though wheat's forerunner Black Emmer would give it a run for the money). It hardly matters that Utrecht Blue is hard to thresh because it is too beautiful to eat and is used instead for wheat weaving and flower arrangements. Features four rows with blue-grey husks and long black awns. Utrecht is a spring wheat; sow it in April for harvest in September rather than planting in autumn and wintering it over. MT-certified. ~19 seeds/g. ①

**A**=4g, $1.50 **B**=20g, $5.00 **C**=100g, $13.00

**4329BK Banatka Winter Wheat ECO** *T. aestivum* An elite winter wheat bred by Eli Rogosa from two superior heritage Eastern European landraces: Ukrainka (originally from Banat, Hungary) described by Russian plant explorer Nikolai Vavilov in the late 1930s as having "high productivity, broad adaptability and excellent baking quality," and Bankuti, beloved for its rich flavor. Also decorative: "Weaves beautifully—isn't wimpy and works well for larger projects," says Kathy Morris of Royalston, MA. Had the highest yield in three years of SARE-funded organic wheat trials at U. Mass. See growseed.org for details. In early September, plant each seed 8" apart, 12 lb per acre for the best yield. Wide spacing produces a deep root system that brings up moisture during drought and strengthens the plants during torrential rains for better climate resilience. Undersow with clover to suppress weeds. Harvest for flour when the chest-high plants are greenish-brown or for seed when they are brown, dry and fully mature in mid-late July. ~20 seeds/g. ①



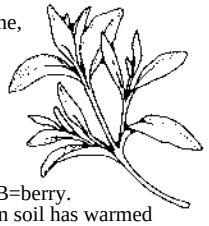
**A**=2g, $2.20 **B**=4g, $4.20
**C**=14g, $11.00 **D**=28g, $20.00

"Aimless is military life, except betimes its aim is deadly."

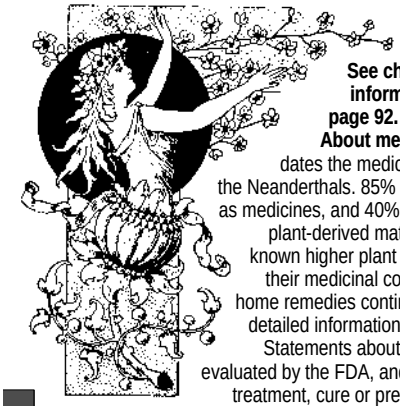
–Cyrus Pringle (1838-1911), Civil War conscientious objector pardoned by Lincoln, and Vermont breeder of heirloom wheats Defiance and Champlain, and of Pringle's Progress oats.

# Cultural Information and Planting Instructions for Herbs

| Name | item# | Botanical name | ABP | height | uses | part | sow | temp | days | notes | cover | sun |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Anise | 4406 | *Pimpinella anisum* | A | 1-3' | S B M | S | DS | M | 7-28 | | L | PF |
| Anise Hyssop | 4407 | *Agastache foeniculum* | P Z4 | 2-3' | B M | L F | DW TP | W | 7-14 | Lt | P | FP |
| Arnica | 4409 | *A. chamissonis* | P Z3 | 20" | M O | F | TP | C | | St | | F |
| Ashwagandha | 4411 | *Withania somnifera* | TP/A | 2-3' | M | R | TP | M | 7-21 | Lt | N | FP |
| Astragalus | 4412 | *A. membranaceus* | P Z4 | 18-48" | M | R | DS TP | M | 7-28 | Sc Sk | L | F |
| Basil | 4414ff | *Ocimum basilicum* | TA | 8-24" | S E M | L | TP DW | W | 4-10 | W | R | F |
| Basil, Sacred | 4467 | *Ocimum sanctum* | TA | 18-24" | S M | L | TP DW | W | 4-10 | | R | F |
| Bergamot | 4481 | *Monarda fistulosa* | P Z3 | 3-4' | B M O | L | DS DF | M | 7-14 | Lt | N | FP |
| Blessed Thistle | 4484 | *Cnicus benedictus* | A | 1-2' | M | F L | TP DS | M | 7-21 | St | L | F |
| Borage | 4491 | *Borago officinalis* | SSA | 2-3' | E M O | F L | DS DF | C | 7-14 | | P | FP |
| Calendula | 4911ff | *Calendula officinalis* | SSA | 18-24" | M O | F | DS | M | 4-14 | | R | FP |
| Caraway | 4507 | *Carum carvi* | SSB | 2' | S E M | S L | DS | C | | | | F |
| Catnip | 4509 | *Nepeta cataria* | P Z3 | 1-2' | M B | L | DS DF | M | 7-10 | Lt | N | F |
| Chamomile | 4511 | *Matricaria recutita* | SSA | 8-18" | B M | F | DS | M | 10-14 | Lt | N | F |
| Chervil | 3044ff | *Anthriscus cerefolium* | SSB | 12-18" | S | L | DS | W | 7-14 | Lt | L | P(F) |
| Chia | 4512 | *Salvia hispanica* | A | 24-36" | B M E | S L | TP | W | 7-14 | | P | F |
| Chives | 4513 | *Allium schoenoprasum* | P Z3 | 1-2' | S M E | L F | DS | C | 7-14 | | L | FP |
| Cilantro | 4517 | *Coriandrum sativum* | A | 1-2' | S E M | L S | DS | C | 7-14 | | R | F(P) |
| Codonopsis | 4520 | *Codonopsis pilosula* | P Z4 | 5-6' | M O | R | TP | M | 7-42 | | N | P(F) |
| Cumin | 4522 | *Cuminum cyminum* | A | 1-2' | S M | S | TP | M | 7-14 | PP | | F |
| Dill | 4530ff | *Anethum graveolens* | SSA | 2-5' | S M O | S L | DS | W | 7-21 | | R | F |
| Echinacea | 4545ff | *Echinacea spp.* | P Z3 | 2-4' | M O | R F | TP DW | W | 14-21 | St Lt | L | F |
| Elecampane | 4550 | *Inula helenium* | P Z3 | 5-8' | M O | R | TP | M | 7-10 | Lt | N | FP |
| Epazote | 4551 | *Dysphania ambrosiodes* | A | 18" | S E | L | DS | M | 7-14 | | P | F |
| Fennel | 4553ff | *Foeniculum vulgare* | TP/A | 1-3' | S M E | L S | DS | M | 7-14 | | R | F |
| Feverfew | 4572 | *Tanacetum parthenium* | P Z4 | 18-30" | M O | L | TP DS | M | 7-14 | Lt | N | FP |
| Garlic Chives | 4577 | *Allium tuberosum* | P Z4 | 12-18" | S E M | L F | DS | C | 7-14 | | L | FP |
| Horehound | 4580 | *Marrubium vulgare* | P Z3 | 20-24" | M C | L | TP DS | M | 10-21 | | P | F |
| Hyssop | 4582 | *Hyssopus officinalis* | P Z3 | 12-18" | M O | L F | TP DF | C | 7-21 | | R | FP |
| Joe Pye Weed | 5150 | *Eupatorium purpureum* | P Z3 | 5-9' | M O | R | DS DF | M | 14-21 | St Lt | N | P |
| Lady's Mantle | 4584 | *Alchemilla mollis* | P Z3 | 12-18" | M O | L | TP | M | 21-30 | St Lt | N | FP |
| Lavender | 4585ff | *Lavandula angustifolia* | P Z5 | 2-3' | M O | F L | TP DF | W | 14-28 | St Lt | P | F |
| Lemongrass | 4587 | *Cymbopogon flexuosus* | TP/A | 3-4' | S B M | L | TP | W | 21-42 | | L | FP |
| Lemon Balm | 4588 | *Melissa officinalis* | P Z4 | 1-2' | B M S | L | TP DS | M | 7-14 | Lt | N | FP |
| Lemon Mint | 4589 | *Monarda citriodora* | SSA | 2-3' | B M | L | DS | M | 7-21 | | R | P(F) |
| Licorice | 4590 | *Glycyrrhiza glabra* | P Z4 | 18-48" | S M B | R | DW TP | M | 7-28 | Sc Sk | L | F |
| Lovage | 4592 | *Levisticum officinale* | P Z4 | 3-6' | S M | L | DS DF | M | 10-21 | | R | F(P) |
| Marjoram | 4616 | *Origanum majorana* | TP/A | 1' | S | L | TP | M | 7-21 | W | N | F |
| Marshmallow | 4619 | *Althaea officinalis* | P Z4 | 4-6' | M O | R L | DS DF | C | 14-21 | St | L | FP |
| Milk Thistle | 4630 | *Silybum marianum* | SSA | 3-5' | M E | S F L | DS DF | M | 7-14 | Lt | L | F |
| Mint | 4632 | *Mentha spicata* | P Z4 | 12-18" | S B M | L | TP DS | M | 7-14 | Lt | N | FP |
| Motherwort | 4640 | *Leonurus cardiaca* | P Z3 | 2-4' | M | L F | DS DF | M | 7-21 | Lt | L | F |
| Mustard | 4642 | *Sinapsis alba* | A | 2-4' | S E M | S | DS | C | 7-10 | | L | F |
| Nettle, Stinging | 4643 | *Urtica dioica* | P Z2 | 3-6' | E M | L | DS | M | 10-14 | Lt | R | FP |
| Oregano, Greek | 4648 | *Origanum heracleoticum* | P Z4 | 6-12" | S M | L | TP | M | 7-21 | Lt | N | F |
| Oregano, Zaatar | 4649 | *Origanum syriacum* | TP/A | 8-24" | S | L | DS TP | M | 7-21 | | N | F |
| Parsley | 3158ff | *Petroselinum crispum* | B Z3 | 8-12" | S E M | L | DS DF | M | 14-60 | Sk | R | FP |
| Pennyroyal | 4651 | *Mentha pulegium* | P Z5 | 8-12" | M O | L | TP | C | 10-14 | | N | FP |
| Pleurisy Root | 4906 | *Asclepias tuberosa* | P Z3 | 18-30" | M O | R | DS DF | M | 14-28 | St | L | F |
| Rhodiola | 4654 | *Rhodiola rosea* | P Z1-5 | 1-3' | M E | R L | TP | C | 14-28 | St | P | F |
| Rosemary | 4657 | *Rosmarinus officinalis* | TP Z8 | 3-4' | S M O | L | TP | M | 10-42 | St Lt | P | F |
| Rue | 4659 | *Ruta graveolens* | P Z3 | 18-24" | M O | L | DS TP | M | 10-21 | | R | FP |
| Sage | 4664ff | *Salvia officinalis* | P Z4 | 2-3' | S B M | L | TP DS | W | 10-21 | Lt | P | F |
| Sage, White | 4666 | *Salvia apiana* | P Z6 | 2-3' | M C | L | TP | W | 14-28 | W | L | F |
| Sagebrush, Silver | 4668 | *Artemisia ludoviciana* | P Z4 | 1-3' | M C | L | DW | M | | | | F |
| Salad Burnet | 4669 | *Sanguisorba minor* | P Z4 | 1' | E M | L | TP | C | 14-28 | | N | F |
| Savory, Summer | 4672 | *Satureja hortensis* | A | 12-18" | S M | L | DS | W | 7-14 | Lt | R | F |
| Savory, Winter | 4674 | *Satureja montana* | P Z3 | 6-12" | S M | L | TP | M | 10-21 | Lt | N | F |
| Shiso | 3282ff | *Perilla frutescens* | TA | 2-3' | S M O | L | TP | W | 7-14 | Sk St Lt | L | FP |
| Skullcap, Baikal | 4681 | *Scuttelaria baicalensis* | P Z4 | 1-2' | M O | R | TP | M | 14-21 | St | P | F |
| Skullcap, Mad-dog | 4682 | *Scuttelaria lateriflora* | P Z4 | 1-2' | M O | L F | TP | M | 14-21 | St | P | P |
| Spilanthes | 4683 | *Spilanthes oleracea* | TA | 8-12" | M O E | F L | TP | W | 4-10 | | P | F |
| Stevia | 4684 | *Stevia rebaudiana* | TP/A | 24" | S | L | TP DW | W | 7-21 | Lt | L | FP |
| St Johnswort | 4686 | *Hypericum perforatum* | SP Z3 | 1-3' | M | F L | DS DF | M | 14-28 | St Lt | N | F |
| Thyme | 4687 | *Thymus vulgaris* | P Z4 | 10-12" | S M | L | TP | C | 14-28 | Lt | N | F |
| Valerian | 4689 | *Valeriana officinalis* | P Z3 | 3-5' | M O | R | DS | M | 10-21 | St | L | FP |
| Vervain | 4692 | *Verbena hastata* | P Z3 | 5-6' | M O | R | TP | M | 21-28 | St Lt | N | F |
| Woodruff, Sweet | 4698 | *Galium odoratum* | P Z5 | 6-8" | O M S | L | DS DF | C | 28-200 | | P | Sh |
| Yarrow | 4699 | *Achillea millefolium* | P Z2 | 1-2' | M O C | F L | DS DF | W | 10-14 | Lt | N | F |



**ABP**: A=annual, B=biennial, P=perennial, Z=hardiness zone, TA= tender annual, SSA=self-sowing annual, SSB=self-sowing biennial, SP=short-lived perennial, TP=tender perennial, TP/A=tender perennial grown as annual.
**height**: typical height at maturity.
**uses**: S=seasoning, M=medicine, O=ornamental, B=beverage, E=edible, C=ceremony.
**part**: part that is used: S=seed, L=leaf, F=flower, R=root, B=berry.
**sow**: DS=direct sow in spring ASAP, DW=direct sow when soil has warmed or after danger of frost has passed, TP=transplant, DF=direct sow in fall.
Nearly any herb can be started indoors and transplanted, but this tends to be more work; TP means this method is strongly suggested for best results. Many perennials can be started in early summer indoors or out; they take several years to mature anyway, what's a few months?
**temp**: suggested soil temperatures for good germination: C=cool, 60-65˚, M=moderate, 65-70˚, W=warm, 70-85˚.
**days**: number of days to seedling emergence.
**notes**: Lt=needs light to germinate, Sk=soak seed 12-24 hrs, Sc=scarify seed with sandpaper or emery board, W=water sparingly, PP=start in peat pots and take care not to disturb root in transplanting, St=stratify seed; place in moist soil and freeze or refrigerate or alternate between the fridge and freezer. Nearly any herb requiring stratification can be fall-sown in a cold frame—the winter does the work for you!
**cover**: L=cover lightly, P=pat down gently, R=rake or scuffle into soil, N=no, don't cover.
**sun**: F=full sun, P=part sun, Sh=shade, FP=prefers full sun but tolerates part, PF=prefers part but tolerates full, P(F)=prefers part, tolerates full only in cool or moist areas, F(P)=prefers full sun, needs part shade in hot climates.



# HERBS

**See chart on page 71 for uses and cultural information. A botanical index appears on page 92.**

**About medicinal herbs:** Archeological evidence dates the medicinal use of herbs back 60,000 years to the Neanderthals. 85% of the world's population employ herbs as medicines, and 40% of pharmaceuticals in the U.S. contain plant-derived materials. Fewer than 10% of the 100,000 known higher plant species have been investigated yet for their medicinal components. Interest in traditional herbal home remedies continues to grow. Consult herbals for more detailed information.

Statements about medicinal use of plants have not been evaluated by the FDA, and should not be used for the diagnosis, treatment, cure or prevention of any ailment. Before using or ingesting any medicinal plant, consult a healthcare practitioner familiar with botanical medicine.

**2300** Takinagawa Burdock**, 4925** Resina Calendula, as well as oats, mammoth red clover and alfalfa in the cover crops section also have medicinal uses. Medicinal herbs such as black cohosh are available as plants from our Trees catalog.

**Herbal culture & cooking:** Some herbs are customarily grown from divisions or cuttings because they cannot come true from seed, such as scented thymes and flavored mints; some require fall sowing of fresh seed, such as sweet cicely and angelica. (Both are available online in Aug. and Sept.)

Drying herbs at home is not difficult. Whole leaves retain their flavor longer than those crumpled or powdered. The flavor should last at least a year. To use fresh herbs in cooking, triple the dried quantity called for in a recipe.



**4406AN Anise** *Pimpinella anisum* Annual bears seeds with subtle licorice overtones and a spicy warming flavor. Drunk as a tea in the Middle East. Used in baking, an essential ingredient in Springerle. Anise helps ease indigestion, gas and colic, also relaxes dry tight coughs. Plant in average-to-rich well-drained warm soil in full sun after danger of frost. Sets small white umbel flowers in July. Seed ripens in August and September. 1–3' tall. ~200 seeds/g. ③

**A**=0.5g, $1.10 **B**=2g, $2.50 **C**=8g, $5.00 **D**=40g, $12.00

**4407AO Anise Hyssop OG** *Agastache foeniculum* Bushy midwestern native permeates the air with sweet licorice fragrance. An outstanding insectary plant, its long-blooming nectar-laden purple flowers attract bees and parasitic wasps, butterflies and hummingbirds. Anise-scented foliage and flowers delightful as a tea or culinary seasoning, or filler in mixed bouquets. The tea induces sweating and strengthens the heart, was used also for fevers, colds, and by Native Americans as a cough medicine. Sow or transplant 1–1½' apart in well-drained warm loam. Perennial can grow 3' tall, 2' wide. Vigorous self-sower. Not related to anise or hyssop. Zone 4. OEFFA-certified. ~2,600 seeds/g. ✿ ①

**A**=0.2g, $1.20 **B**=1g, $2.80 **C**=5g, $5.50 **D**=25g, $14.00

**4409RO Arnica Chamissonis OG** *A. c.* Meadow arnica is a native American species that will grow successfully in low-elevation gardens. *A. chamissonis* has been tested and is generally accepted as a substitute for the official European *A. montana*. Use the yellow flowers at full flowering either fresh or dried, in compresses and salves as an external remedy on unbroken skin to reduce swelling and bruising caused by traumatic injury, and on arthritic joints. 20" perennial yields well with multiple flower stalks blooming for most of the early season. Stratify seed and give it light to germinate. Start indoors and transplant into humus-rich soil in full sun. Zone 3. MOFGA, OT-certified. ~2,500 seeds/g. ✿ ①

**A**=0.02g, $1.30 **B**=0.1g, $3.00

**4411WO Ashwagandha OG** *Withania somnifera* In Sanskrit its name means 'the vitality of the horse' and it imparts such energy; *somnifera* promotes sleep. An herb of wide value, generally known as the ginseng of Ayurvedic medicine. Upright shrub exceeds 2' with inconspicuous green-to-yellow flowers ripening to red berries. Roots are dried at the end of the growing season and used internally powdered or tinctured (other plant parts are toxic if eaten). Herbalist Deb Soule harvests the roots when the berries ripen in mid-October. Her delightful book, *How to Move Like a Gardener*, (**9726** in the book section) has more details about ashwagandha. One of the best rejuvenators, especially good for the elderly, it tones without overstimulating and can be used in all conditions of weakness and chronic debilitation. Needs warmth and light to germinate. Sow indoors in the spring and transplant out in June; prefers dry stony soil in sun or partial shade. Perennial in Zone 10, grown as an annual here in the north. OT-certified. ~1,000 seeds/g. ②

**A**=1g, $1.70 **B**=4g, $5.80 **C**=12g, $16.00

**4412AS Astragalus** *A. membranaceus* Safe effective adaptogenic tonic to use daily throughout the year, aiding digestion and promoting immune system health (*wei qi*). Called *huang qi* in Chinese and Chinese Milk Vetch Root in English. Especially good for vegetarians. Also used in cases of exhaustion, food allergy or depression, and to increase assimilation, improve digestion, and eliminate excess fluids. In his book *Healing Lyme* (**9715** in the book section) Stephen Harrod Buhner makes a convincing case that astragalus can prevent and treat the many and varied symptoms of Lyme disease. Small yellow pea-like flowers on upright stems with vetch-like leaves. 1½–4' perennial. Plant in deep well-drained slightly alkaline soil. Harvest 4- to 6-year-old roots in the fall. Zone 4. ~50 seeds/g. ②

**A**=0.5g, $2.00 **B**=3g, $6.00 **C**=9g, $12.00 **D**=27g, $30.00

## BASIL *Ocimum basilicum*

**~600 seeds/g.** Indispensable culinary herb, in cultivation for more than 3,000 years. By far our most popular herb, the various kinds selling over 12,000 packets in 2014.

**Culture:** Direct seed when soil warms in late spring or transplant after danger of frost in well-drained moderately rich soil. Young seedlings will damp off if heavily watered during cool cloudy weather. Water sparingly at first. Use row covers to enhance early season vigor and speed maturity. Thin to 8–12", top mature plants to induce branching and increase total yield. Harvest before plants blossom. Absolutely intolerant of frost, damaged by temperatures in the 30s. Research from Southwestern University in Texas showed that basils in low-nitrogen soils had less vigorous growth but higher contents of polyphenolic compounds that may help prevent many diseases and cancers.

**Diseases:** Where so indicated our varieties have been sampled and found to be fusarium-free. While not a guarantee that the entire lot is fusarium-free, a negative test improves the odds. No samples were taken for varieties not so indicated.

**Sweet** (70 days) The heaviest-yielding variety, recommended for drying, all-around great eating, and large-scale pesto production. We sold nearly 5,000 packets last year of these two strains of Sweet Basil. All seed is held over.

**4414SB Sweet** Genova strain. Tested for fusarium. ⑤

**A**=4g, $1.30 **B**=28g, $4.40 **C**=112g, $10.00 **D**=336g, $25.00

**4415WO Sweet OG** WA, CCOF-certified. ⑤

**A**=4g, $1.70 **B**=28g, $6.50 **C**=112g, $17.00 **D**=336g, $40.00

**4418GB Genovese** (70 days) The choice of many connoisseurs for making pesto. Also called Perfumed Basil. Leaves are slightly smaller and finer than Sweet Basil with more aroma and potency. ②

**A**=2g, $1.10 **B**=10g, $2.50 **C**=40g, $6.00 **D**=160g, $12.00

**4422MB Mammoth** No grape leaves available? Lettuce-leaf type has very large ruffled leaves suitable for rolling or stuffing. Flavor similar to sweet basil. Give plenty of space per plant so leaves can dry out after wet spells. However, the smaller types are easier for drying. ②

**A**=1g, $1.20 **B**=7g, $2.80 **C**=28g, $8.00 **D**=84g, $15.00

**4430SG Spicy Globe** *O. b. minimum* (70 days) Marvelous little basil grows to about 8" and maintains a compact mound of light green leaves and white flowers. Its leaves are small, thin and strongly scented. Great as an ornamental border, in a windowbox, or as an indoor potted plant that can be snipped for culinary use. ②

**A**=0.5g, $1.30 **B**=5g, $2.50 **C**=15g, $6.00 **D**=60g, $15.00

**4436AB Anise** Originally from Persia. Vigorous mulberry-tinted basil with anise fragrance makes highly decorative tall bushy plant. Slow to bolt. Great in Italian tomato sauces. Also used in Thai and various Mediterranean cuisines. ②

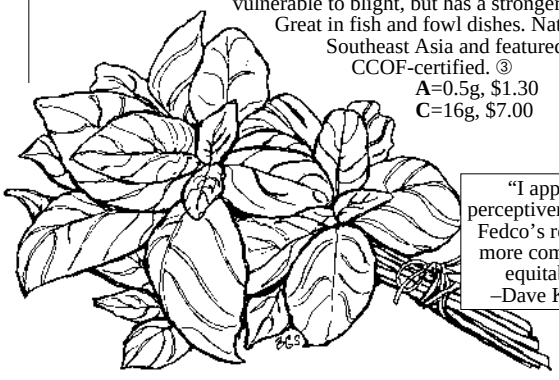
**A**=0.5g, $1.30 **B**=7g, $3.00 **C**=28g, $7.00 **D**=84g, $15.00

**4441RO Aromato OG** Dramatic bicolor ornamental. Broad bushes of mottled purple and green grow to 2½', providing a focal point. Starts purple and takes on a greener coloration. Pleasing anisey flavor and scent intensify when it is dried. Makes a great herbal vinegar. AGRIOR-certified. ③

**A**=0.5g, $1.40 **B**=3g, $3.20 **C**=12g, $7.00 **D**=36g, $16.00

**4448LO Lemon OG** *O.b. citriodorum* Basil often used in bouquets for its intense lemon fragrance. Not as vigorous as **4449** Sweet Dani and more vulnerable to blight, but has a stronger truer lemon flavor. Great in fish and fowl dishes. Native to Thailand and Southeast Asia and featured in those cuisines. CCOF-certified. ③

**A**=0.5g, $1.30 **B**=4g, $3.00 **C**=16g, $7.00 **D**=48g, $15.00



"I appreciate your perceptiveness and applaud Fedco's role in shaping a more compassionate and equitable society."
–Dave Kostka, Juda, WI

**4449SD Sweet Dani Lemon** (65 days) 1998 AAS for its extraordinary vigor that manifests even in the seedling stage and continues through the summer. Tall upright plant reaching almost 30" is 2–3 times as vigorous as **4448** Lemon basil with heavier yields of large light green leaves. Does not need coddling. Tested for fusarium. ⑤
**A**=0.5g, $1.90 **B**=1.5g, $3.50 **C**=4.5g, $8.00 **D**=13.5g, $20.00

**4450BB Mrs. Burns Lemon** (64 days) Chosen for its intense lemony fragrance. Medium-sized bright green leaves. Heirloom variety grown for 60 years in southeastern New Mexico, first offered commercially by Native Seeds/Search, has now achieved nationwide fame. ③
**A**=0.5g, $1.30 **B**=4g, $3.00 **C**=20g, $7.00 **D**=60g, $16.00

**4453LO Lime OG** *O. americanum* (65 days) Imparts a robust lime fragrance to the patch. More vigorous than lemon basil, darker green leaves with a strong lime flavor. CCOF-certified. ③
**A**=0.25g, $1.40 **B**=1g, $3.20 **C**=4g, $6.00 **D**=16g, $9.00

**4456RR Red Rubin** (78 days) The original strain, with fewer green-leaf throwbacks. More vigorous than Purple Ruffles. Highly ornamental dark purplish-bronze foliage. A salad of purple basil leaves and yellow tomatoes provides a stunning color contrast. Tested for fusarium. ⑤
**A**=0.5g, $1.50 **B**=2g, $3.50 **C**=10g, $8.50 **D**=30g, $20.00

**4461PR Purple Ruffles** (85 days) Deep purple plants with serrated and crinkled leaves for striking visual contrast in the herb garden. Imparts attractive color to basil vinegars. Not a vigorous grower in our climate but will reach a height of 18" in peak summer heat. Some plants will have green foliage and in some the green will be mixed with purple. 1987 AAS. PVP. ⑤
**A**=0.25g, $1.60 **B**=1g, $3.20 **C**=4g, $7.00 **D**=12g, $19.00

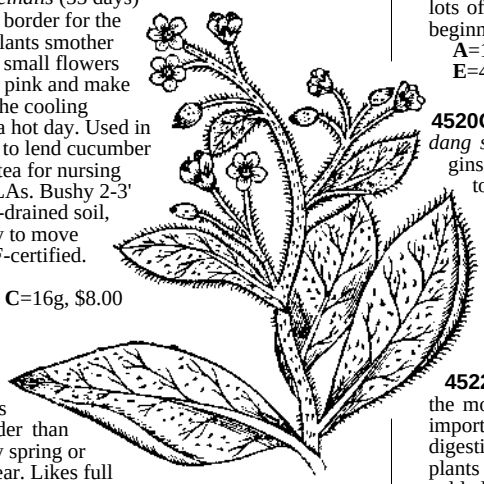
**4467BO Sacred OG** *O. tenuiflorum* (100 days) Native to India and used in Indian as well as Thai cuisine. Spicier than other basils and quicker to go to seed, but still usable when covered with purple flowers. Used in Ayurvedic medicine as a poultice on acne, ringworm, eczema and insect bites. Strengthens the immune system and increases oxygen uptake in the brain. Stands a bit more cold than other basils. OT-certified. ①
**A**=0.1g, $1.30 **B**=1g, $3.00 **C**=7g, $7.50 **D**=21g, $15.00

**4470TB Thai** (60 days) Lends its distinctly strong licorice-anise basil flavor to Thai food. An attractive 12–18" fine-leaved plant with purple stems, seed heads and flowers. Good container plant as well. ②
**A**=0.5g, $1.30 **B**=4g, $3.00 **C**=12g, $6.00 **D**=36g, $12.00

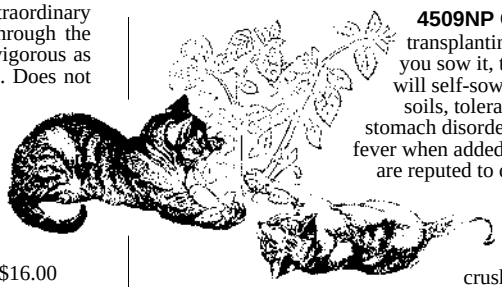
**4481WO Wild Bergamot OG** *Monarda fistulosa* Our native wildflower species of the familiar bee balm is a great addition to the perennial border in light dry alkaline soils. The 3–4' plants bear aromatic lavender blossoms highly attractive to pollinators. Leaves impart pungent aroma to teas, potpourri, meats and beans. Traditionally used as an aromatic stimulant to improve digestion and increase perspiration. Native Americans employed it internally to combat colds and flus and externally to calm skin eruptions. Zones 3-9. MOFGA-certified. ~2,000 seeds/g. ✿ ①
**A**=0.1g, $1.30 **B**=0.4g, $3.00 **C**=2g, $6.50 **D**=4g, $11.00

**4484HO Blessed Thistle OG** *Cnicus benedictus* Also known as St. Benedict Thistle, Holy Thistle and Sacred Thistle. A hairy annual featuring branched bristly red stems, long spiny leaves with sinuate margins, and spine-encircled yellow flowers, blooming from July through September. Its leaves, flowers and roots are edible, the latter boiled as a vegetable. Used as a liver tonic or digestive bitter; said to stimulate gastric and bile secretions, to improve mother's milk, and to rectify hormonal imbalances. Originally from the Mediterranean, it prefers warm dry sunny locales with poor soil. *May be emetic in large doses.* Grows 2' tall and 1–1½' wide. OT-certified. ~40 seeds/g. ②
**A**=0.25g, $1.50 **B**=1g, $3.00 **C**=4g, $8.00

**4491BO Borage OG** *Borago officinalis* (55 days) Gloria Seigars suggests it as a great border for the vegetable garden where the dense plants smother weeds and attract bees. Bears many small flowers that open blue, turn purple and then pink and make colorful additions to salads. Enjoy the cooling properties of very young leaves on a hot day. Used in cough syrups or frozen in ice cubes to lend cucumber flavor to cold drinks. A nourishing tea for nursing mothers. Seeds a good source of GLAs. Bushy 2-3' annual likes sun, prefers moist well-drained soil, will self sow. Young plants are easy to move around. Survives light frosts. CCOF-certified. ~50 seeds/g. ✿ ③
**A**=0.5g, $1.20 **B**=4g, $3.00 **C**=16g, $8.00 **D**=80g, $24.00



**4507CW Caraway** *Carum carvi* Feathery-leaved 2' biennial grown primarily for its seeds to season soups, stews, breads and pastries. Its leaves are also edible, though milder than the seeds. Direct seed either in early spring or late summer for seeds the second year. Likes full sun, sandy well-drained soil. Will self-sow. Zones 3-9. ~350 seeds/g. ②
**A**=0.5g, $1.10 **B**=7g, $2.50 **C**=28g, $5.50 **D**=112g, $11.00



**4509NP Catnip** *Nepeta cataria* (85 days from transplanting) "If you set it, the cats will get it; if you sow it, they won't know it." Hardy perennial, will self-sow once established. Likes rich or sandy soils, tolerates poor soil and drought. Calms mild stomach disorders, produces restful sleep and relieves fever when added to teas. Tovah Martin writes that rats are reputed to despise it, so it is sometimes used as a companion plant for melons and squashes. Researchers at Iowa St. U. who claim catnip is a top-notch mosquito repellant suggest rubbing crushed leaves on the skin is several times more effective than using DEET. Zones 3–8. ~1,400 seeds/g. ✿ ③
**A**=1g, $1.10 **B**=7g, $2.80 **C**=28g, $6.50 **D**=112g, $13.00

**Bodegold Chamomile** *Not available this year;* we recommend **4511** Chamomile.

**4511CM Chamomile** *Matricaria recutita* (65 days) Annual, likes moist well-drained soil, and can be direct seeded or transplanted. Flower heads are ready to gather when the petals fall back from the center. Try using a blueberry rake to harvest them. Chamomile tea calms nerves, soothes the stomach and can be sleep-inducing. ~1,750 seeds/g. ③
**A**=1g, $1.50 **B**=3g, $3.00

**Chervil** see **3044**-**3045**.

**4512CH Chia** *Salvia hispanica* Ch-Ch-Ch Chia! Who hasn't heard that call to sprout these seeds as kitchen kitsch? Now you can grow these ancient delicious seeds into a crop of your own—outdoors, in the ground—though because of their long season, they perform best if started indoors and transplanted out. High in essential fatty acids, the seeds benefit the body by regulating sugar while helping to remove toxins. The famous Tarahumara runners have long used chia seeds to sustain them for prolonged physical activity. Before the appearance of the seeds, use the leaves either dried or fresh as a tea—or even feed them to your farm animals. One caveat: because of Chia's preference for flowering in short-day conditions, there may not be enough time to produce seed in northern areas before the first frost kills the plants. ~160 seeds/g. ③ **NEW!**
**A**=1g, $1.50 **B**=3g, $3.50 **C**=12g, $6.00 **D**=36g, $12.00

**4513CO Chives OG** *Allium schoenoprasum* (80 days) Hardy perennial. 1–2' hollow grasslike leaves enhance any dish with their subtle onion flavor, providing a fine treat in very early spring. Lilac-colored flowers bloom in June and July, can be eaten or enjoyed in arrangements fresh or dried. Used in Asia as a remedy for colds and flu. For best production, grow in well-drained soil and divide clumps every few years. However, nearly indestructible even with neglect in extreme conditions. Can be brought inside for the winter. Zone 3. CCOF-certified. ~900 seeds/g. ③
**A**=0.5g, $1.30 **B**=7g, $3.20 **C**=28g, $8.00 **D**=112g, $24.00

## CILANTRO *Coriandrum sativum*

**~60 seeds/g.** Useful for its fresh green foliage, its edible flowers that attract many beneficial insects, and coriander—its dried seeds. Produces leaves in generous quantity, essential flavoring in Indian, Chinese, Southeast Asian, North African and Latin American cooking. Accentuates soups, salsas and bean dishes like no other herb.

**Culture:** Annual grows to 2' with whitish blooms. Make succession plantings in average well-drained soil and keep watered for lushest leaf production. Thin early. In warm locations will stand longest as a fall crop. Jason Kafka harvests for market by yanking out whole plants.

**4517RO Caribe OG** (55 days) The best of the ten strains of cilantro in our trial. Received high marks from trialer Heron Breen as "hardworking with lots of excellent eating foliage and great flavor." Longstanding; was barely beginning to flower on July 9. OT-certified. ④
**A**=1g, $1.10 **B**=4g, $2.80 **C**=28g, $5.20 **D**=112g, $15.00 **E**=448g, $48.00

**4520CD Codonopsis** *C. pilosula* Also called Poor Man's Ginseng and *dang shen* in China. Perennial to Zone 4. Used in Chinese medicine like ginseng, but considerably easier to grow than true Panax ginseng. Also fun to grow as a novel ornamental. Tendrilly twining vines with small ovate leaves grow to 3–4' long by their second year. Mature vine about 5–6' long. Buds look like green peas, swell to little green balloons, flower as green bells with purple veining, then mature to five-sided-balloon seed pods. Harvest long firm sweet roots with tight skins in autumn at 4–6 years. Used to support energy levels, digestion, immune response, and to clear excess mucus from the lungs. Full sun to part shade, well-drained soil. All seed is held over; germs at 93%. ~3,700 seeds/g. ②
**A**=0.02g, $2.00 **B**=0.06g, $5.00 **C**=0.18g, $12.00

**4522CU Cumin** *Cuminum cyminum* (100-115 days) After black pepper, the most widely used spice in the world. Seeds of this culinary cumin are important in flavoring Mexican and Indian cuisine and are said to aid digestion. Foliage is fragrant and ferny, somewhat like dill; but unlike dill, plants grow only 1–2'. Annual, takes a long time to mature so start indoors in cold climates. Our thanks to Lee Cooper for suggesting that we spice up our herb selection with cumin. All seed is held over. ~300 seeds/g. ②
**A**=0.5g, $1.10 **B**=1g, $2.10 **C**=6g, $4.40 **D**=30g, $6.30

## DILL *Anethum graveolens*

**~500 seeds/g.** Name derived from the Norse *dilla*, meaning 'to lull,' as the plant is said to have soothing properties. Best known in this country for pickling, but essential for Russian, Polish and Hungarian cuisine. Annual, sometimes classed as biennial, grows to 4-5'. Upright plant branches out from single stalk; the feathery leaves known as dill weed. Likes well-drained moderately rich soil.

**Bouquet** Bouquet is usually grown for dill weed production because its leaves are sweeter and more refined than those of Mammoth. Foliage should be harvested early, before seed stalks mature.

**4530BU Bouquet** (55 days) The biggest, best and ferniest strain of the four in our lot grow-out. ✿ ②

**A**=4g, $1.20 **B**=28g, $3.00 **C**=224g, $12.00 **D**=448g, $20.00

**4531BO Bouquet OG** (55 days) CCOF-certified. ✿ ③

**A**=2g, $1.30 **B**=8g, $2.60 **C**=40g, $5.50 **D**=200g, $20.00

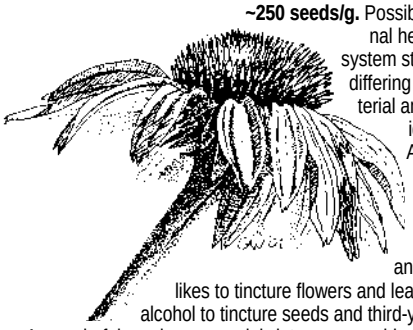
**4536FL Fernleaf** (55 days) 1992 AAS. A dwarf variety suitable for small gardens or patio containers, Fernleaf grows only half as tall as other varieties and is very slow to go to seed. One September, most of our May planting had not yet bolted, and its abundant piquant foliage was still suitable for harvesting. Multi-branching plants spread 18–24". PVP. ✿ ⑤

**A**=0.5g, $1.70 **B**=1.5g, $3.30 **C**=4.5g, $6.00 **D**=13.5g, $15.00

**4542MM Mammoth** Variety generally grown for its seeds. Can also be used as dill weed, but the foliage is slightly darker, coarser and stronger-tasting than that of Bouquet. Otherwise, differences between the two in plant height and habit are barely discernible. ✿ ②③

**A**=4g, $1.20 **B**=28g, $3.00 **C**=224g, $12.00 **D**=448g, $20.00

## ECHINACEA spp.



**~250 seeds/g.** Possibly the best-known of the medicinal herbs, widely used as an immune-system stimulant. Species contain slightly differing constituents, but all are antibacterial and antiviral. Ethnobotanists have identified at least 14 native North American nations that used Echinacea for similar purposes: sore throat, toothache, infection, wounds, snake bite and skin disorders, as well as hair combs and children's toys. Joanna Linden likes to tincture flowers and leaves in August and use the same alcohol to tincture seeds and third-year roots in October.

A wonderful garden perennial: late summer blooms attract butterflies and bees and make good cutflowers; dew collects in the spiral mandala coneheads.

**Culture:** Start indoors at 70–75˚, germinates in 15–20 days. Grow on at 60–65˚. Set out 18-24" apart. Zones 3–10.

**4545NL Narrow-Leaved** *E. angustifolia* Smallest and least vigorous of all the Echinacea species, but the one with the most medicinal tongue-tingling properties. Small taproots can be difficult to harvest. Overharvesting in the wild by zealous collectors has endangered this species, so cultivate some for your use. Short rose-pink petals, spreading and toothy. Tapered hairy leaf. 6–20" tall. Native to prairies west of the Mississippi, Saskatchewan to Texas. Herbalist Richo Cech suggests stratifying seeds for 30 days. ✿ ②

**A**=0.5g, $1.60 **B**=1.5g, $4.00 **C**=6g, $8.40 **D**=24g, $27.00

**4547CO Purple Coneflower OG** *E. purpurea* Large, showy, vigorous and hardy, a popular garden perennial since the early 1700s. Large fibrous roots are easy to harvest. Though not a mix, the colorful flowers vary from rose to lavender to purple. Long downward-curving petals around large spiny centers. Broad toothed leaf. Easy-to-grow, 2–4' tall, native to a wide range of habitats, from Appalachian woods to midwest prairies. Often self-sows. OEFFA, OT, MOFGA-certified. ✿ ①

**A**=1g, $1.40 **B**=4g, $3.30 **C**=16g, $6.50 **D**=48g, $16.00

**4550EO Elecampane OG** *Inula helenium* Also known as Horseheal, Wild Sunflower and Elf Dock. Large dramatic plant is an excellent lung tonic. Important to the ancient Greeks, said to have sprung from the tears of Helen of Troy. Mucilaginous root relaxes lungs and helps clear mucus, calms cough. Antibacterial and antifungal, also used for asthma, bronchitis, cough and flu, especially in children. Helpful for scabies, herpes and other skin disorders (an old name is Scabwort). Plant in heavy moist well-drained loam with generous helpings of compost. Dig root in mid fall. 5–8' perennial with 2–3" bright yellow rayed flowers, blooming May to August. Zone 3. WA-certified. ~1,600 seeds/g. ①

**A**=0.1g, $1.60 **B**=0.3g, $3.50 **C**=1.2g, $6.80 **D**=3.6g, $12.00

"Please continue NOT to cater to the I-want-it-all-&-I-want-it-now attitude in our society."
–Anne D'Alton, Burlington, VT

**4551ZO Epazote OG** (50 days) *Dysphania ambrosioides* Annual. As this herb is cited frequently in all my Mexican cookbooks, I have searched for years for "a sprig of epazote." At last I grew it myself and have stored plenty to last through the winter. Epazote contains high concentrations of terpenes, known for their carminative benefits: think nature's 'Beano.' The flavor adds depth to black bean dishes, a compelling and tasty ingredient I have come to long for when it's missing. But use prudently: a dish that calls for one sprig is not improved with two! Direct seeded in mid-spring, it reaches 18" tall, producing serrated resinous leaves that are used fresh or easily dried. Its tiny flowers attract beneficial wasps and syrphid flies to your garden. ~6,700 seeds/g. OT-certified. ✿ ① **NEW!**

**A**=0.1g, $1.50 **B**=0.3g, $4.50 **C**=1.2g, $10.00

## FENNEL *Foeniculum vulgare*

Perennial grown as an annual with a licoricey taste. Tender stalks and leaves are good for relishes, salads and garden munches; leaves and seeds excellent with fish. May also be grilled, sauteéd or steamed. Seeds used in sweets, baked goods & beverages. Aids digestion while reducing flatulence. Can soothe bronchial coughs. **Culture:** Fennel prefers rich well-drained slightly limey soil. Direct seed in late April or early May. *Do not allow to dry out.* Has potential as a fall crop hardy to under 20˚. Sow in early summer to discourage bolting; keep soil surface moist.

**4553PO Perfection OG** (72 days) Open-pollinated. Our best-selling new variety in 2013. The acme of Perfection in bulbing fennel, and a good performer in cool soils. Trialed alongside Orion, Florence and Zefa Fino, it was the best bulber, developing the fewest high narrow stalks even in overcrowded conditions in the very warm spring of 2012. Stood five days longer than Zefa with much thicker bulbs. Our thanks to Eric Schori of Gnarlwood Farm in Lempster, NH, who suggested Perfection. "We may not have the long springs and Willamette River silts of Corvallis, OR, but I've seen Perfection large enough to be used to subdue an ornery moose. I haven't gotten it that big here in the Northeast, but it still makes a superb bulbing fennel even at more modest sizes. Sautée with onions, yellow peppers and a little toasted sesame oil and you may [succumb to] the temptation to keep it all for yourself instead of taking it to market." Maine's cantankerous moose: consider yourselves warned! CO-certified. ①

**A**=0.5g, $1.70 **B**=3g, $4.90 **C**=9g, $12.00 **D**=27g, $30.00

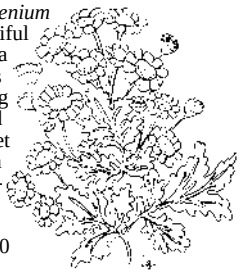
**4556ZF Zefa Fino** (65 days) Bulbing type. 3' with edible blue-green stems and feathery green leaves. Bred at the Swiss Federal Research Station. Compared to some of the traditional Italian varieties, much more resilient under stress and much less likely to bolt. A spring planting will stand till late summer. We advise a second sowing in July for crisp juicy bulbs till October. Thin to approximately 12" apart in 18" rows; *overcrowding induces premature bolting.* ~200 seeds/g. ③

**A**=0.5g, $1.20 **B**=3g, $3.00 **C**=9g, $7.00 **D**=27g, $15.00

**4567BO Bronze OG** (65 days) Slow grower with very thin stems valued for its striking feathery bronze foliage. Delicious and decorative. An intriguing addition to mesclun and to flower beds. OT-certified. ~375 seeds/g. ①

**A**=0.2g, $1.40 **B**=0.6g, $3.00 **C**=3g, $7.00 **D**=30g, $16.00

**4572FO Feverfew OG** *Tanacetum parthenium* Strongly scented bushy 18" plant with beautiful daisy-like white blooms good in bouquets. A tea from the chrysanthemum-like leaves was traditionally used as a relaxant. Chewing regularly on a bitter leaf or two is said to prevent migraines. Sow indoors, set out in average well-drained soil when seedlings have four true leaves. Perennial to Zone 4, maybe 3. Will self-sow. WA-certified. ~5,000 seeds/g. ①



**A**=0.1g, $1.60 **B**=0.4g, $3.50 **C**=2g, $8.00

**4577GC Garlic Chives** *Allium tuberosum* (90 days) Also called Chinese chives or Chinese leeks. Known as *jiu cai* in China. Grows like chives, 1' tall, but has flat strap-like leaves that taste like garlic and can be used as a garlic substitute in salads and sautéed vegetables. White flowers are edible, long-lasting in bouquets and good in dried arrangements. Sow thinly in spring, harvest sparingly till plants are established; after that they are vigorous and self-sowing. *Seed is very short-lived.* Perennial, but protect in cold areas. Easier than chives to bring indoors for winter. Zone 4. ~210 seeds/g. ③

**A**=0.5g, $1.30 **B**=14g, $3.50 **C**=56g, $9.00 **D**=168g, $24.00

**4580HH Horehound** *Marrubium vulgare* Perennial forms a 2' bushy stand of grey-green wooly leaves, making a good border. Horehound candies were once common for soothing coughs and the tea makes a strong remedy for coughs and lung congestion. One of the bitter herbs of Passover. Transplant while seedlings are still small or direct seed into light dry sandy soil. Hardy to Zone 3. All seed is held over. ~950 seeds/g. ②

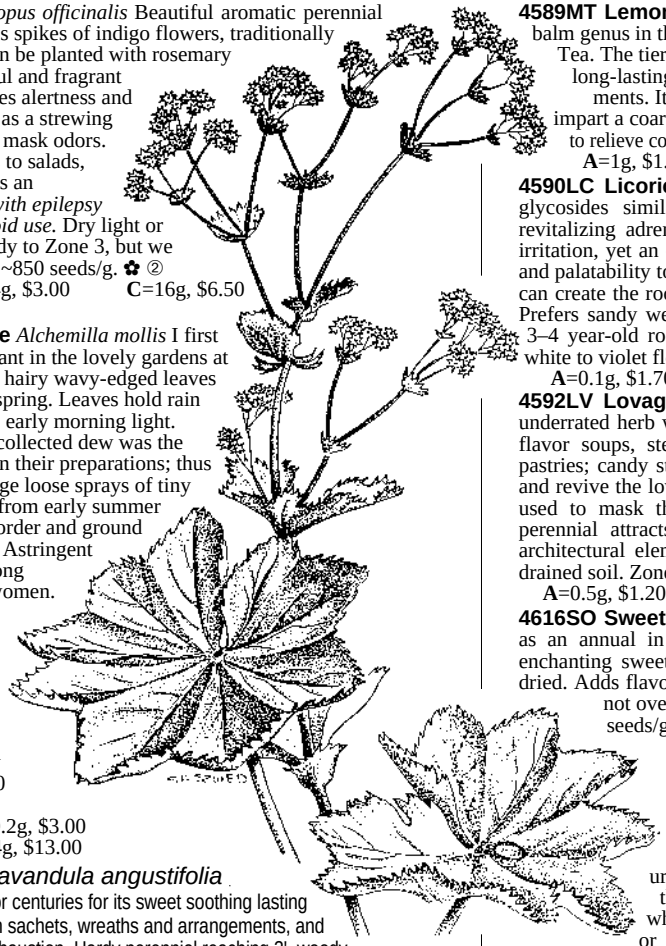
**A**=0.2g, $1.20 **B**=1g, $3.00 **C**=4g, $6.00 **D**=12g, $12.00

**4582HY Hyssop** *Hyssopus officinalis* Beautiful aromatic perennial border plant that produces spikes of indigo flowers, traditionally used in cough syrups. Can be planted with rosemary and lavender for a colorful and fragrant effect. Its aroma stimulates alertness and mental clarity. Was used as a strewing herb, thrown on floors to mask odors. Add slightly bitter leaves to salads, soups and stews, or use as an expectorant tea. *People with epilepsy and pregnant women avoid use.* Dry light or sandy soil. Normally hardy to Zone 3, but we had 75% loss in 2003–4. ~850 seeds/g. ✿ ②

**A**=0.5g, $1.20 **B**=4g, $3.00 **C**=16g, $6.50 **D**=48g, $13.00

**4584LM Lady's Mantle** *Alchemilla mollis* I first admired this attractive plant in the lovely gardens at Avena Botanicals. Softly hairy wavy-edged leaves unfold like fans in early spring. Leaves hold rain and dew, sparkling in the early morning light. Alchemists believed the collected dew was the purest water and used it in their preparations; thus its genus name. Bears large loose sprays of tiny greenish-yellow flowers from early summer onward. Makes a good border and ground cover in shady locations. Astringent and regenerative, has a long history as a remedy for women. Seed is short-lived. Oscillating temperatures aid germination which requires 21–30 days. Likes average well-drained soil and moisture; tolerates most conditions. 12–18" hardy perennial. Zone 3. ~2,600 seeds/g. ③

**A**=0.05g, $1.30 **B**=0.2g, $3.00 **C**=1g, $7.50 **D**=4g, $13.00



## LAVENDER *Lavandula angustifolia*

**~1,000 seeds/g.** Famous for centuries for its sweet soothing lasting scent. Flowers used dried in sachets, wreaths and arrangements, and as a tea for headache or exhaustion. Hardy perennial reaching 3', woody shrublike plant with grey-green needle-like foliage and lavender flowers growing on long-stemmed spikes. Attracts small pollinating insects and syrphid flies.
**Culture:** Likes well-drained alkaline sandy soil. Germinates in 21 days at 60–70˚.

**4585LO Lavender OG** Also known as English lavender. Texts claim hardy to Zone 5, but our patch in Zone 3 survived ten straight winters until the nasty one of 2003–4. ✿ CCOF-certified. ③

**A**=0.2g, $1.50 **B**=1g, $3.20 **C**=5g, $9.00 **D**=20g, $24.00

**4586VB Vincenza Blue** More compact habit than common lavender with deeper green leaves and a more powerful, less sweet, aroma. 1' plants have bold clustered flower spikes with deep color from mid-July to early September. Flowers the first year without vernalization. Long-day perennial needs full sun. Zone 5. ✿ ②

**A**=0.03g, $2.10 **B**=0.12g, $5.80 **C**=0.6g, $21.00

**4587LG Lemongrass** *Cymbopogon flexuosus* Nikos searched for years for this culinary strain of lemongrass, native to Southeast Asia, used in food and medicine there for millennia, and adopted worldwide for the bright lemony flavor it imparts. Coarse grass sets 6–12 harvestable stalks, looking something like pencil leeks, slightly bulbous at the base. Harvest the tough stalks low; the plants will re-grow, though probably only to 3' here in Maine rather than the 6' achieved in the tropics. Use chopped or ground, fresh, dried or frozen, add to soups, sauces and stir-fries, or make into a delicious medicinal tea to aid digestion. Holli Cederholm reports that it's well worth growing for market: her customers raved about its quality compared to the supermarket's, and a caterer bought it regularly for infusing mixed drinks. Perennial in Zones 9-11, grown as an annual in our climate unless potted up and brought indoors for the winter. Not a great germinator; 40% is considered good. Sow indoors and transplant out 8–12" apart. ~2,000 seeds/g. ②③

**A**=0.1g, $1.50 **B**=0.3g, $3.50 **C**=1.2g, $9.00 **D**=6g, $18.00

**4588LB Lemon Balm** *Melissa officinalis* (70 days) *Melissa* is the Greek word for honeybee; the plant in flower attracts them. Perennial growing to 2'. Gather its yellow-green scalloped lemony leaves before plants flower. Delicious in salads, as a tea, with fruit, or dried for sachets. Flowers are edible. Essential oil of lemon balm smells fabulous and is highly effective against cold sores, but is very expensive. Steep multiple batches of leaves in olive oil to make an infused oil, one of the many ways to enjoy this relaxing calming comforting uplifting herb all winter. Likes very well-drained fertile soil; wet ground may winterkill it more than cold. However, tends to self-sow in the very same years that the roots winterkill. Zone 4. ~1,800 seeds/g. ✿ ②

**A**=0.3g, $1.20 **B**=3g, $3.00 **C**=15g, $6.50 **D**=45g, $12.00

**4589MT Lemon Mint** *Monarda citriodora* An annual member of the bee balm genus in the mint family. Native to Appalachia and related to Oswego Tea. The tiered pinkish-purple flower spikes of this showy 2–3' plant are long-lasting in fresh bouquets and can be dried for everlasting arrangements. Its lemon-scented leaves are delicious and commonly used to impart a coarse mint flavor with a hint of oregano to tea. Inhale the steam to relieve cold symptoms. Best in light moist soil. ~1,800 seeds/g. ✿ ②

**A**=1g, $1.10 **B**=7g, $2.80 **C**=28g, $6.50 **D**=84g, $12.00

**4590LC Licorice** *Glycyrrhiza glabra* Sweet and soothing root contains glycosides similar to the body's own natural steroids. Beneficial for revitalizing adrenal glands, good for colds and bronchitis, reduces throat irritation, yet an expectorant and anti-spasmodic. Adds sweetness, harmony and palatability to nearly every herbal combination. Give it lots of room so it can create the roots and runners you want. Weak competitor against weeds. Prefers sandy well-drained loam and a mulch to prevent heaving. Harvest 3–4 year-old roots in the fall. Perennial to Zone 4, grows 1½–4', bears white to violet flowers. ~90 seeds/g. ②

**A**=0.1g, $1.70 **B**=0.3g, $4.40 **C**=0.9g, $9.00 **D**=4.5g, $32.00

**4592LV Lovage** *Levisticum officinale* (90 days from transplanting) An underrated herb with many uses. Leaves have a strong celery taste and can flavor soups, stews and casseroles. Crush seeds and add to bread and pastries; candy stems and roots in sugar syrup. Said to restore the appetite and revive the love of life. Second-year plants are best for drying. Formerly used to mask the bitter herbs in medicinal concoctions. Umbelliferous perennial attracts beneficial insects, grows 3–6' and makes a dramatic architectural element in a decorative border. Likes moist rich deep well-drained soil. Zone 4. ~140 seeds/g. ✿ ②

**A**=0.5g, $1.20 **B**=4g, $3.00 **C**=16g, $6.50 **D**=48g, $12.00

**4616SO Sweet Marjoram OG** *Origanum majorana* (80-95 days) Grown as an annual in the North. 1' plant with grey-green rounded leaves of enchanting sweet fragrance. Cut often to prevent flowering. Use fresh or dried. Adds flavor to soups, stews and stuffings. Subject to damping off; do not overwater. Likes well-drained dry soil. CCOF-certified. ~4,000 seeds/g. ③

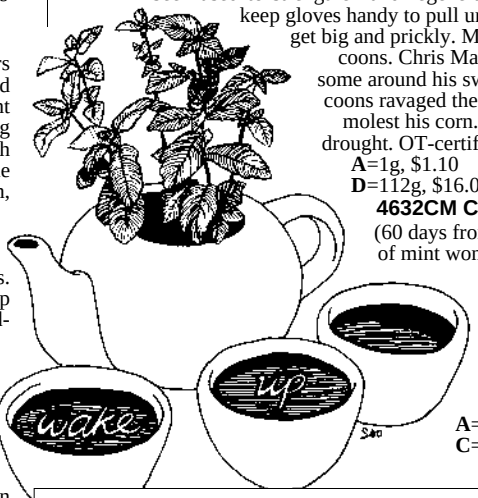
**A**=0.5g, $1.60 **B**=2g, $3.50 **C**=8g, $8.00 **D**=32g, $16.50

**4619MM Marshmallow** *Althaea officinalis* Cousin to the hollyhock, used to soothe and soften irritated skin and membranes and to relieve stuck hacking coughs. Also mildly stimulates white blood cell production and relieves urinary tract infections and prostate problems. Harvest root of this 4–6' showy perennial in autumn of the third year. Meanwhile, enjoy the showiness of the flowers through the summer or eat the velvety leaves in salads. All mallows contain soothing mucilage in the root, and marshmallow has the most, so it makes a great home-garden substitute for slippery elm. For tea, steep roots in cold water for several hours rather than boiling. Plant in cool moist soil. Will self-sow. Zone 4. ~600 seeds/g. ①

**A**=0.4g, $1.40 **B**=1.2g, $3.30 **C**=6g, $7.00 **D**=24g, $16.00

**4630TO Milk Thistle OG** *Silybum marianum* Named for the bold white splashes on its glossy leaves, said to be from Mary's milk. Fast-growing 3–5' annual with fiercely beautiful leaves, up to 8x24". Native to the Mediterranean. Use edible young leaves in spring salads or cooked like spinach; remove spines first! Flower stalk puts out large purple thistle flowers that were eaten like artichokes. Silymarin, found in the flowers and seeds, has been used to strengthen and regenerate liver tissue. Will self-sow; keep gloves handy to pull unwanted volunteers before they get big and prickly. May present a way to outwit raccoons. Chris Mazur of Apple River, IL, planted some around his sweet corn patch, and though the coons ravaged the rest of his garden, they did not molest his corn. Likes dry soil, very tolerant of drought. OT-certified. ~40 seeds/g. ②

**A**=1g, $1.10 **B**=4g, $2.80 **C**=28g, $6.60 **D**=112g, $16.00




**4632CM Common Mint** *Mentha spicata* (60 days from transplanting) Specific types of mint won't come true from seed. This is the common tea mint. Can be grown directly in pots indoors in winter. Keep it in containers to check its invasive tendencies. Likes moist soil, full sun or partial shade. Perennial to Zone 4. ~12,000 seeds/g. ②

**A**=0.2g, $1.50 **B**=1g, $3.20 **C**=4g, $8.00 **D**=16g, $27.00

**Supplier Codes** Know where your seed comes from! See page 5 for details.
① Small seed farmers including Fedco staff.
② Family-owned companies or cooperatives, domestic and foreign.
③ Domestic and foreign corporations not part of a larger conglomerate.
④ Multinationals not to our knowledge engaged in genetic engineering.
⑤ Multinationals who are engaged in genetic engineering.
⑥ Manufacturers of neonicotinoids: Bayer and Syngenta.

**4640MO Motherwort OG** *Leonurus cardiaca* Hardy perennial of the mint family grows 2–4' with dull green leaves having a pungent odor and rather bitter taste. Good bee plant. Pick flowering tops for tea or herbal tincture. Believed to strengthen the heart muscle and relieve nervous tension. Used by women during life transitions. Readily self-sows even in relatively poor soil and can become troublesome; pull up unwanted first-year basal rosettes before they put out their spiky flower stalk the second year. Zone 3. WA-certified. ~1,200 seeds/g. ✿ ①

**A**=0.2g, $1.70 **B**=1g, $4.00 **C**=3g, $10.00 **D**=9g, $25.00

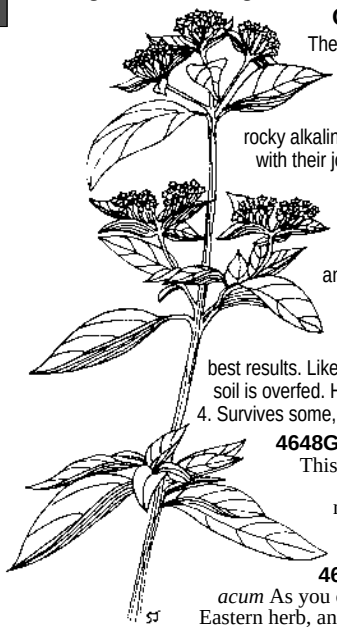
**4642YM Yellow (White) Mustard Seed** (70-85 days) *Sinapis alba* Oh ye who have faith, if you plant a scant dozen, they should yield enough to make at least a couple batches of prepared mustard. This is the variety of seed most common to American palates but will be pallid without the addition of turmeric. Or alternately, toast the seeds in a fry pan until they pop, and then grind into spicy mixtures. As easy to grow as the leafy mustards. Harvest seeds as soon as pods begin to turn tan. Pods open once the seeds are dry. Spice up those cold winter nights! Annual. All seed is held over and germinates at 93%. *Cannot ship sizes C and D to the Willamette Valley.* ~145 seeds/g. ③

**A**=1.5g, $1.10 **B**=6g, $2.80 **C**=24g, $6.00 **D**=96g, $12.00

**4643SN Stinging Nettle** *Urtica dioica* Biodynamic gardeners use nettles to increase the potency of neighboring herbs, and to stimulate humus formation. An indicator of very fertile soil where it volunteers. Young shoots and leaves are delicious steamed as spring greens, very high in minerals. Also makes a great hair rinse or dry chicken feed. Perennial may spread rampantly by underground rhizomes if not controlled. Choose your spot carefully; the rhizomes as well as the leaves can sting. Cooking or drying removes the sting. Plant in damp rich soil with high nitrogen content; especially likes composted manure piles or the leaky side of your lushest compost bin. Chill the seed before sowing to improve germination, which takes 10–14 days. Grows 3–6'. Zone 2. 6,000 seeds/g. ③

**A**=0.2g, $1.40 **B**=0.6g, $3.00 **C**=2.4g, $7.00 **D**=7.2g, $14.00

## OREGANO *Origanum* spp.



The oregano genus has more than 50 species. The ancient Greeks gave it its name, meaning 'joy of the mountains.' These fragrant flowering plants grow freely on steep rocky alkaline hills, filling Mediterranean mountainsides with their joyful cheer and intense scent. Not only has oregano flavored foods for thousands of years, but it also has a variety of medicinal uses, from relieving rheumatism and asthma to decongesting stuffy head colds and even calming seasickness.

**Culture:** Low-growing perennial with fragrant dull green and purple leaves and white flowers. Start indoors in spring for best results. Likes light well-drained soil. Will lose potency if soil is overfed. Harvest when it is beginning to flower. Zone 4. Survives some, but not all, winters in Zone 3.

**4648GR Greek Oregano** *O. heracleoticum* This is the true culinary herb for Greek and Italian cooking, and a close relative of marjoram. ~9,000 seeds/g. ②

**A**=0.2g, $1.40 **B**=1g, $3.20 **C**=5g, $6.00 **D**=20g, $20.00

**4649ZO Zaatar Oregano OG** *O. syriacum* As you can see from the Latin, this is a Middle Eastern herb, an oregano that carries a bit of zing and a necessary ingredient in the condiment zaatar. Mix with sumac, toasted sesame seeds, salt and sometimes a few other herbs, to make the sprightly topping so essential to Arabic cuisine. Bushy tender perennial, hardy to Zone 10, grown as an annual in colder climes. For best, most aromatic flavor, harvest before its small white flowers appear. It thrives in sun on poor well-drained non-acidic ground. Start seeds indoors 6–8 weeks before frost or sow directly in the ground just prior to the last spring frost. All seed is held over. AGRIOR-certified. ~4,650 seeds/g. ③

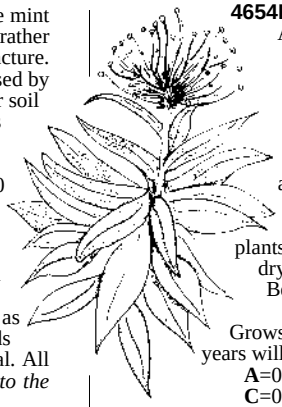
**A**=0.02g, $2.00 **B**=0.08g, $4.60 **C**=0.24g, $9.00 **D**=0.96g, $30.00

**Parsley** see **3158**-**3170**.

**4651PR Pennyroyal** *Mentha pulegium* Native to Europe, across the Mediterranean into Persia. Hardy aromatic ground cover notorious for its insect-repellent properties: can be used to ward off mosquitoes and to repel fleas from pets. Makes a potent tea. Pennyroyal's distilled oil can be toxic, but the tea rinse is safe for external use. *Caution: Pregnant women should not use.* Plant 6" apart to make a dense mat. The plants creep with only the lavender flower stalks rising above the ground. Perennial in the mint genus likes rich well-drained soil with good moisture. Mulch for winter protection in Zones 4 and 5. ~12,000 seeds/g. ③

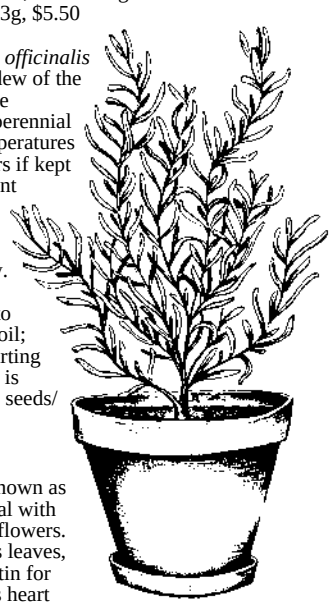
**A**=0.2g, $1.50 **B**=0.6g, $3.50 **C**=1.8g, $7.00 **D**=5.4g, $15.00

"Severe winter weather—That's when I need your catalog!…I long to see steam rising from Ward's sugarhouse down the road—then I'll know it's spring."
–Calee Simpson, Barnard, VT



**4654RR Rhodiola** *R. rosea* Perennial, Zones 1-5. Also called Arctic Root or Rose Root. Succulent with small chartreuse-yellow flowers at the top of the stems in late April to early May. Circumpolar native grows in Russia, Siberia, Scandinavia and the Maritime provinces into Downeast Maine. Eat the leaves in salads, cook young shoots and enjoy like asparagus. North American Indians fermented the rose-scented roots before eating them. One of the best adaptogens, counters stress and fatigue, and strengthens the immune system. Stratify seed for six weeks, then gently press seed into flats. Grow on in the greenhouse; small plants grow slowly and are sensitive to conditions too wet or too dry. Transplant out 12" apart anytime the ground is workable. Best in sunny location in dry, rocky soil but fairly adapted to any well-drained soil. Control weeds until plants size up. Grows 1–3' tall. Roots harvestable after 3 years, though after 4–5 years will provide more mass. ~3,900 seeds/g. ②

**A**=0.01g, $2.20 **B**=0.03g, $5.50 **C**=0.12g, $15.00



**4657RO Rosemary OG** *Rosmarinus officinalis* From the Latin *ros marinus* meaning 'dew of the sea,' a reference to its native habitat, the Mediterranean coasts. Beloved tender perennial growing to 3–4'. Cannot withstand temperatures below 17˚, may be overwintered indoors if kept cool and moist. Try near a cool basement window and keep misted. Dark grey-green needle-like leaves impart a robust resiny flavor that complements chicken, pork and potatoes wonderfully. Rosemary clippings are said to repel slugs. Blossoms range from deep blue to pale pink or white. Likes dry alkaline soil; peat pots are too acidic to be a good starting medium. Not a good germinator—30% is average. Zone 8. CCOF-certified. ~800 seeds/g. ③

**A**=0.2g, $3.20 **B**=0.6g, $9.00 **C**=1.8g, $18.00 **D**=7.2g, $65.00

**4659RU Rue** *Ruta graveolens* Also known as Herb-of-Grace. Very attractive perennial with blue-green foliage and delicate yellow flowers. Used as an insect and deer repellent. Its leaves, aromatic and bitter, contain iron and rutin for strengthening blood and vessels. Calms heart palpitations, nervous indigestion and colic. Used in eyewash to soothe tired eyes and relieve headaches from eyestrain. *Rue should never be ingested by pregnant women.* Several herbalists warn that large doses can cause pain and vomiting; also contact dermatitis in sensitive individuals. Ancients rubbed their arms in olive oil before harvesting to prevent irritation. Likes poor soil and needs good drainage. 18–24" tall. Zone 3. ~450 seeds/g. ②③

**A**=0.5g, $1.20 **B**=2g, $2.80 **C**=8g, $6.00 **D**=24g, $12.00

**Broadleaf Sage** *Salvia officinalis* Grows up to 3', with fuzzy grey-green oblong leaves and blue flowers. Used fresh or dried. Tasty in stuffing blends, with eggs, cheese, poultry, pork. CR and Eli use it to enhance black tea and coffee. Sage tea dries up mothers' milk and helps reduce hot flashes. Likes well-drained rich soil with good nitrogen content. Perennial plants grow woody with age; replace every 3 years or so. Zone 4, but only one of our five plants survived the harsh winter of 2003–4. ~125 seeds/g. ✿

**4664BS Broadleaf Sage** All seed is held over, tests at 82%. ②③

**A**=1g, $1.40 **B**=4g, $3.20 **C**=16g, $6.00 **D**=48g, $15.00

**4665SO Broadleaf Sage OG** LACON-certified. ④

**A**=1g, $1.60 **B**=4g, $4.00 **C**=16g, $7.00 **D**=48g, $18.00

**4666WS White Sage** *S. apiana* An important ceremonial herb for Native Americans who use it for purification. Leaves can be smoked, taken as a tea, or used for smudge sticks and in sweat lodges. Bushy perennial with thick stems and dusty grey-green foliage. A good bee plant. Not nearly as hardy as common sage; needs heavy protection to overwinter in our climate. Zones 6-9. ~700 seeds/g. ✿ ②

**A**=0.05g, $2.00 **B**=0.2g, $5.00 **C**=1g, $8.00 **D**=5g, $25.00

**4668SS Silver Sagebrush** *Artemisia ludoviciana* The other white sage, easier to grow than **4666** and perennial in Zones 4-8. Most often used ceremonially as a smudge for cleansing and purification. An attractive landscape plant, as well, growing to a height of 1–3' with ornamental silver foliage. Sow in spring when soil warms to 65˚. Space plants 1½' apart. Can spread. ~10,600 seeds/g. ②

**A**=0.02g, $1.40 **B**=0.1g, $3.30 **C**=0.4g, $6.60 **D**=2g, $18.00

**4669SB Salad Burnet** *Sanguisorba minor* (70 days from transplanting) Toothed oval leaves add a mild cucumber flavor to salads, soups, vinegars and cold drinks. Also used to soothe sunburn or eczema. Perennial, reaching 1' makes a nice edging plant, starts growing early spring and stays green till snowfall. Sow spring or autumn. Cut back flower and seed stalks to encourage leaf growth. Zones 4–8. ~175 seeds/g. ②

**A**=1g, $1.20 **B**=7g, $3.30 **C**=28g, $6.60

**4672SS Summer Savory** *Satureja hortensis* (70 days) Annual grows to 1½' with narrow dark green leaves and lavender flowers. Cut often during growing season, before blossoms appear. Sow after last frost in well-drained soil next to beans, their complement in the kitchen as well. Use with dry or green beans, rice, stuffings, or in onion soup. Left to bloom, it is beautiful in fall with dark purple foliage and lavender flowers. ~1,700 seeds/g. ③

**A**=1g, $1.10 **B**=14g, $3.20 **C**=56g, $6.00 **D**=224g, $17.00

**4674WS Winter Savory** *S. montana* (100 days from transplanting) Leaves shinier and thicker, stronger and more pungent than summer savory. Used to flavor dry beans or sauerkraut, winter soups and stews. Hardy bushy perennial grows 6–12", thriving in dry poor soil. Start indoors 8–10 weeks before last spring frost date; transplant after danger of frost. Makes an attractive border with its tiny green leaves and light lilac flowers. Also used as a tea to calm indigestion or as a gargle for sore throat. Zone 3. ~2,000 seeds/g. ③

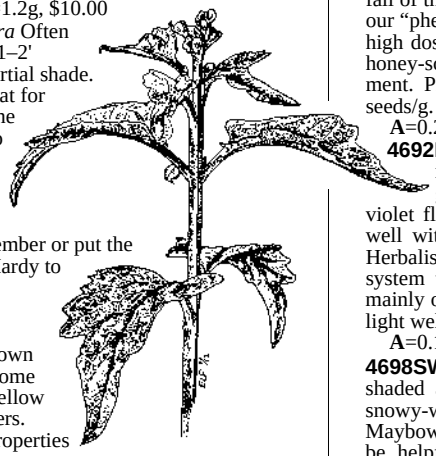
**A**=0.1g, $1.40 **B**=0.4g, $3.50 **C**=2.4g, $6.50 **D**=9.6g, $12.00

**Schisandra** *S. chinensis* No crop at press time. *Consult our website for possible availability later in the season.*

**Shiso** *Perilla frutescens* See **3282-3283**.

**4681BS Baikal Skullcap** *Scuttelaria baicalensis* Beautiful little perennial with a myriad of small violet monkshood-shaped blooms on a 1–2' subshrub. Looks like a shiny rosemary with slender ovate leaves. A definite candidate for the rock garden, it tolerates drought and grows best in light well-drained soil. Important as the Chinese herb *huang qin*, 3–4 year roots are dried and used as a bitter cooling sedative that lowers fever, blood pressure and cholesterol levels while stimulating the liver; also used to stop bleeding. To encourage the roots' optimal medicinal powers, pinch buds and don't let flowers bloom. Zone 3. ~250 seeds/g. ✿ ②

**A**=0.1g, $2.00 **B**=0.3g, $5.00 **C**=1.2g, $10.00



**4682MS Mad-dog Skullcap** *S. lateriflora* Often called Virginia Skullcap, native spreading 1–2' perennial needs moist rich soil and likes partial shade. Herbalists use it as a headache remedy, great for insomnia and both calms and strengthens the nervous system. Flowering tops of skullcap are used in daily teas as well as formulas for chronic conditions. Called Mad-dog because the tea was once used as a folk remedy for rabies. Enjoy its numerous small blue flowers from July through September or put the leaves in a pillow to induce restful sleep. Hardy to Zone 4. ~500 seeds/g. ②

**A**=0.05g, $2.00 **B**=0.2g, $6.60 **C**=0.8g, $25.00 **D**=2.4g, $70.00

**4683SO Spilanthes OG** *S. oleracea* Known to herbalists as the toothache plant and to some gardeners as the eyeball plant for its cute yellow globe flowers with rayless red-orange centers. Spilanthes' tingling and mouth-numbing properties appear rapidly and last a while. Also known as Salad Cress, it was introduced from Brazil to North America in the 1860s and listed as Para Cress in seed catalogs a century ago. Use its bronzy-purple leaves in salad or chew the leaves and flowers for temporary pain relief. Its immune-stimulating properties, similar to echinacea's, are giving it a wider audience. Highly frost-sensitive annual. Used as a ground cover in the south, it adds unusual beauty with its low growth habit and makes a colorful border planting in fertile moist soil. MOFGA-certified. ~3,000 seeds/g. ①

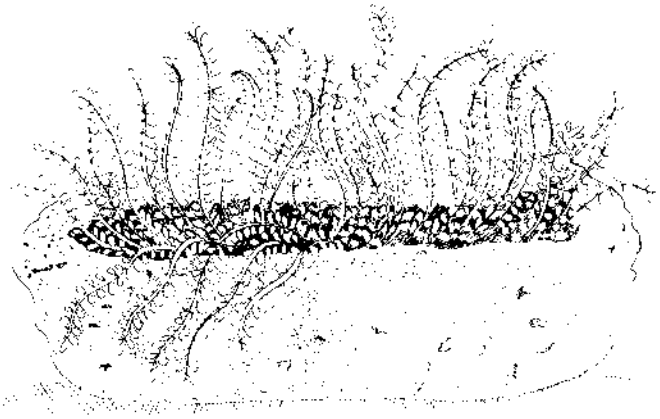
**A**=0.02g, $1.70 **B**=0.08g, $4.00 **C**=0.32g, $8.50

**4684ST Stevia** *S. rebaudiana* (100-120 days) As sweet as it gets, stevia is several hundred times sweeter than sugar, but without the calories. It is used fresh, dried, powdered or in a liquid as a sugar substitute. An erratic and finicky germinator, the seed needs light. Likes heat so should not be transplanted outdoors until nights stay above 50˚. Work compost into well-drained soil or raised beds. Stevia grows into a bushy 2' plant with serrated leaves and white flowers in late summer. Pinch it back for greater bushiness and higher yields. Perennial in Zone 9, so treat as an annual or bring indoors in a container. Ironically, it retards plaque and inhibits tooth decay. For more information about its culture and use see *Growing and Using Stevia* by Jeffrey Goettemoeller and Karen Lucke (**9690** in the book section). ~3,100 seeds/g. ②⑤

**A**=0.01g, $2.20 **B**=0.04g, $5.60 **C**=0.2g, $24.00

**4686TS Topas St Johnswort** *Hypericum perforatum* Pretty yellow flower of fields and meadows turns tinctures and oils deep red. Used as tea, tincture or infused oil for many nerve disorders, from neuralgia and sciatica to insomnia, mild depression, seasonal affective disorder and chronic exhaustion. The infused oil is also cooling to sunburn and cuts, soothing to strained joints and muscles. Was even used in the Middle Ages for sword wounds! Frequent use can cause photosensitivity. Compared to generic St. Johnswort, Topas is an improved strain for commercial production, much earlier (blossomed first year from seed), more floriferous with a higher content of hypericin. Seedlings grow slowly. Prefers well-drained dry soil; very drought tolerant but essential oil levels increase with some moisture. 1–3' perennial hardy to Zone 3. *We cannot ship to North Dakota or California where it is considered a noxious weed.* ~7,000 seeds/g. ③

**A**=0.1g, $1.30 **B**=0.5g, $3.30 **C**=2g, $6.50 **D**=8g, $16.00



**4687GT German Thyme** *Thymus vulgaris* Creeping 10–12" mat-forming perennial brings depth of flavor to soups, gravies, casseroles. Said to calm the nerves, soothe headaches. As good in salad dressings as it is in sore-throat remedies. Bees love its short lavender flower spikes. Likes well-drained light dry alkaline soil. Its fine root system makes thyme difficult to move around the garden. Hardy Zones 4–9. ~4,000 seeds/g. ✿ ③

**A**=0.2g, $1.30 **B**=3g, $3.30 **C**=15g, $6.50 **D**=45g, $16.00

**4689VL Valerian** *Valeriana officinalis* Known as Nature's Tranquilizer or Herbal Valium, valerian root is used to reduce tension and anxiety, alleviate insomnia, and relieve muscle spasms and cramping. Harvest the roots in the fall of the second or later year. Early Greeks referred to valerian as *phu* (like our "phew") because of the distinctive fetid musky smell of the roots. Avoid high doses for prolonged periods. Tall leafy 3–5' perennial with clusters of honey-scented pale pink flowers. Remove flowers to hasten root development. Plant in moist fertile soil about 1' apart. Hardy to Zone 4. ~800 seeds/g. ③

**A**=0.2g, $1.40 **B**=0.6g, $3.30 **C**=2.4g, $6.50 **D**=7.2g, $14.00

**4692BO Blue Vervain OG** *Verbena hastata* This 5–6' perennial grows naturally in moist thickets and meadows and will do well in similar garden conditions, sending up many terminal spikes of bristly blue-violet flower clusters the entire season. Although scraggly, it blends very well with many kinds of flowers by stretching its spikes amongst them. Herbalist Gail Edwards finds it "a powerful spiritual presence" and nervous system tonic. Similar to *V. officinalis*, but more alterative, vervain acts mainly on the liver and lungs. Its roots are more active than its leaves. Likes light well-drained moist soil. Zone 3. WA-certified. ~2,500 seeds/g. ①

**A**=0.1g, $1.50 **B**=0.4g, $3.30 **C**=4g, $14.00 **D**=12g, $32.00

**4698SW Sweet Woodruff** *Galium odoratum* A lovely ground cover for shaded areas, its whorls of pointed leaves covered with clusters of tiny snowy-white spring flowers. Vanilla-scented leaves are essential in Maybowl, a traditional German punch, and also used in potpourris. Said to be helpful for migraine, nervous conditions and stomach pain. Drying increases its clover fragrance. A classic strewing herb in the Middle Ages used to purify the church, dining hall and bedrooms with its coumarin-rich fragrance. Sow outdoors in a woodland site or in a heavy layer of well-rotted leaf mulch. Can be very slow to germinate—up to 200 days—and then may not be visible right away because the plants grow by underground rhizomes. Be patient—woodruff will appear the following spring and grow 6–8" tall. Perennial, Zones 5–9. ~160 seeds/g. ③

**A**=0.2g, $1.60 **B**=0.6g, $3.50 **C**=2.4g, $7.00 **D**=7.2g, $15.00

**4699WY White Yarrow** *Achillea millefolium* Flat-topped white flowers bloom June–August with an odd alluring scent that attracts bees, butterflies and beneficials. One of the most popular herbs for colds and flu. A hot cup of tea from leaves and flowers induces a sweat to throw off heat and toxins. Also used to lower blood pressure and to stanch internal and external bleeding. Avoid large doses during pregnancy. Perennial grows 1–2', spreads slowly, preferring lean soil. Rich garden soil may produce lush 3' plants that need staking. Zone 2. See **4802**–**4804**, p. 93, for ornamental yarrows. ~5,000 seeds/g. ✿ ②

**A**=0.1g, $1.10 **B**=1g, $2.80 **C**=14g, $7.00 **D**=56g, $18.00

Virgil on Bees

They alone hold children in common: own the roofs
of their city as one: and pass their life under the might of the law.
They alone know a country, and a settled home,
and in summer, remembering the winter to come,
undergo labour, storing their gains for all.

But at night the weary young carry back sacs filled with thyme:
they graze far and wide on the blossom of strawberry-trees,
and pale-grey willows, and rosemary and bright saffron,
on rich lime-trees and on purple hyacinths.

All have one rest from work: all have one labour:
they rush from the gates at dawn: no delay: when the evening star
has warned them to leave their grazing in the fields again,
then they seek the hive, then they refresh their bodies:
there's a buzzing, a hum around the entrances and thresholds.

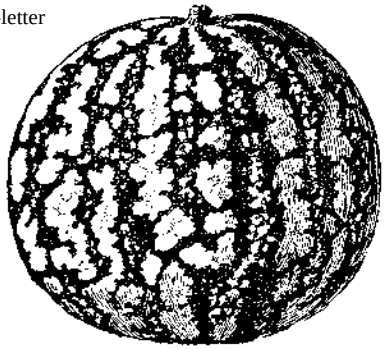
–from Book IV of *The Georgics*

# Directions for ordering SEEDS

**Directions daunting? Order online: fedcoseeds.com**

- Please use a current catalog. Prices, item numbers and availability change! Need a current catalog? Call (207) 426-9900.
- Order only seeds **100-6000** on seeds form, *no potatoes, cover crops, supplies or books*. Moose Tubers order form on page 81, OGS page 83.
- You may send in separate forms from more than one division at the same time and pay with one check. Figure totals for each division on its proper form, then add division totals to figure grand total.
- Please write clearly in **pen**, not pencil.
- Please keep a copy of your order and send us the original.
- Use the correct item # with its two-letter suffix, not the item name.
- Write the code letter for the packet size, not the weight.
- Please **make a subtotal for each column** and total your order even if paying by credit card.
- We will charge your credit card when we receive your order. We will send you a bill or a refund for any adjustments as each order is completed. We do not charge the adjustments to your credit card.

When filling your order form please include the letters as well as the numbers. If you get a number wrong, the letters help us figure out what you wanted.



## Delivery

### UPS/Priority Mail

- **Free shipping for seed orders over $30 (items 100-6000).**
- We ship via UPS ground or USPS Priority Mail; our choice, based on weight.
- We pull & ship orders based on the date received. No special rush service.
- **We begin daily shipping of seed orders on Jan. 7.**
- Average turn-around time from receipt of orders is 10 days, slowest soon after we begin shipping and in January, fastest in March & April.
- From May to early Nov. we ship once a week, usually Wednesday. Order on the weekend, Monday or Tuesday for quickest service.
- If you'd like us to hold your order for a later shipping date, please attach a note to your order form or a comment to your online order.
- Missing your shipment? Allow 2–3 weeks from your mailing or online submission date, then contact us.
- We ship to Canada. Consult our website for details.

**Pickup** Come to our warehouse in Clinton. See the map on page 85.

**Seeds: January-October** We will send a confirmation email or postcard with directions and your order number when your order is ready to pick up (within 1–2 weeks of receipt of order). Pick up at our warehouse, **Tues, Wed, & Thurs. only**, 9:00–3:00. Sorry, no other weekdays or weekends, except Tree Sale.

**Tree Sale pickup** Friday & Saturday, May 1–2 (preorder customers only), and May 8–9 (Public Tree Sale) 9:00-3:00 each day. Order by April 10. *Note:* Seeds will be at the Seeds warehouse up the hill, not at the Trees warehouse.

### Group orders

We will pull and package each order separately and ship all to *one address*. Discounts apply to one division, combined totals. You may not combine orders from different divisions to qualify for a higher discount.

We accept group orders **online**. Group coordinators can find details at our website. Go to the Seeds page and click on Group Ordering.

Or use the **mail** and bundle individual orders with a summary form for each division with address information and totals. Please keep copies.

**How to prepare a summary form:**

- Attach a separate summary page for **each division** (Seeds, MT, OGS, Trees). Use an order form with no items on it, fill in name and address blanks and totals information. See example.
- A summary form without individual totals is acceptable.
- Please use **one method of payment** for each division order. You may combine totals for all divisions and send one check. Please include credit card number and expiration date on summary form for each division.
- Figure all discounts from subtotal. See example.
- We treat all add-ons as additional orders.

**Group coordinators' responsibilities:**

- Collect individual orders and payments from group members.
- Make sure each item of each individual order is on proper form (for example, no potatoes on the seeds form); make necessary corrections.
- Add up order subtotals for each division. Keep track of individual payments and settle with group members after the final shipment.
- Bundle orders for each division with a summary and one payment and mail to us.
- Receive and distribute back-ordered items.
- Send us corrections for any errors in group order.

**Fedco Seeds' substitution policy**

We ask you on your order form whether you will accept substitutions. *We will make substitutions where necessary* rather than out-of-stock you, *unless you decline substitutions on the form*. If you don't specify, we sub.

- **If you ordered a snow pea, we will substitute a snow pea.** We will choose a very similar snow pea of comparable maturity date, height, color if available, but will substitute any other snow pea we have if necessary. **If we have no other snow peas, we will *not* substitute a shell pea, bean or anything else.**
- We will substitute hybrids for open-pollinated varieties only when that is our sole alternative.
- If we have to sub a more expensive variety, we won't charge you more.
- If we run out of organically produced seed we will substitute high quality conventional seed for the same variety unless you instruct us otherwise.
- If we run out of conventional seed we may substitute organically produced seed for the same variety, but charge you only the conventional seed cost.
- We are sorry that we cannot honor specific substitution requests.

### Deadlines

- Peak-season orders (by mail & online) accepted thru Friday, March 20.
- Off-peak orders online only on items **1-6000** accepted until Oct. 31, 2015.

**Discounts** See the order form on the facing page.

Additional orders over $50 qualify for original (or largest) discount, if they are to the same address.

### Handling Charges

All seed orders under $30 **including pick-ups** add $5 handling charge. This charge applies regardless of how much you ordered from other divisions.

### No Returns

No returns or exchanges of seed. If you bought it, it's yours! See limited guarantee (page 3) for defective products only.

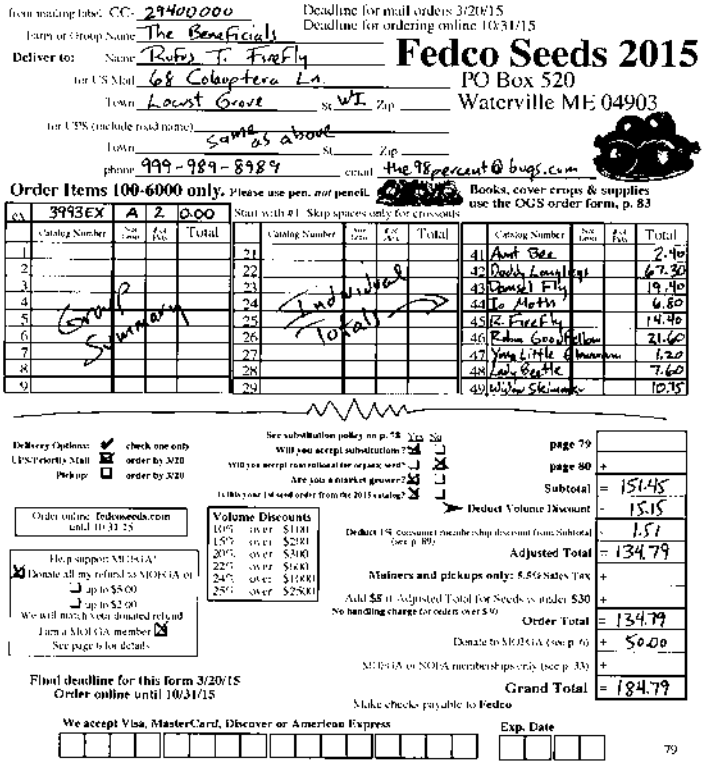
### Sales Tax

Maine residents and pickup customers pay 5.5% on **all** seed. Maine farms and retailers: Please send us a copy of your state resale certificate or farm exemption. Otherwise we must charge sales tax.

**There is no sales tax on orders shipped outside of Maine**.

**Backorders** are items not available at time of shipment that come in later. We try to minimize them.

- For orders with only one A-size or B-size packet on backorder who accept substitutions, we will substitute for rather than backorder those items.
- Early orders have the most backorders.
- We ship backordered items needing an early start ASAP after we receive them. We batch *other* backordered items to reduce our shipping costs.
- We fill orders received after March 6 from available remaining stock. No backorders.
- We will ship all backorders by March 20. Please contact us if you are still missing any backorders or have not received a refund by April 3.
- We enclose your INVOICE with the first shipment.
- We include any REFUND with the final shipment.


Deadline for mail orders 3/20/15
Deadline for ordering online 10/31/15
Fedco Seeds 2015
PO Box 520
Waterville ME 04903
Order Items 100-6000 only. Please use pen, not pencil.
Books, cover crops & supplies use the OGS order form, p. 83
Start with #1. Skip spaces only for crossouts
3993EX A 2 0.00
Group Summary
Individual Totals
Aunt Bee 2.40
Daddy Longlegs 67.20
Daniel Fly 19.40
Te Moth 6.80
Z. Firefly 14.40
Robin Goodfellow 21.60
Itsy Little 1.20
Lady Beetle 7.60
Wise Skinner 10.75
Volume Discounts
Adjusted Total 134.79
Order Total 134.79
Grand Total 184.79
Final deadline for this form 3/20/15
Order online until 10/31/15
We accept Visa, MasterCard, Discover or American Express
Exp. Date

from mailing label: CC-_____

Deadline for mail orders 3/20/15
Deadline for ordering online 10/31/15

Farm or Group Name _____

# Fedco Seeds 2015

**Deliver to:** Name _____

for US Mail _____ PO Box 520

Town _____ St _____ Zip _____ Waterville ME 04903

for UPS (include road name) _____

Town _____ St _____ Zip _____

phone _____ email _____

## Order Items 100-6000 only. Please use pen, *not* pencil.

**Books, cover crops & supplies use the OGS order form, p. 83**

Start with #1. Skip spaces only for crossouts.

| ex | 3993EX | A | 2 | 0.00 |
|---|---|---|---|---|

| | Catalog Number | Size Letter | # of Pkts | Total | | Catalog Number | Size Letter | # of Pkts | Total | | Catalog Number | Size Letter | # of Pkts | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | 21 | | | | | 41 | | | | |
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**VEGETABLE, HERB & FLOWER SEEDS**

our use only ↓

**Delivery Options:** ✔ check one only
**UPS/Priority Mail** ❑ order by 3/20
**Pickup:** ❑ order by 3/20

**See substitution policy on p. 78**

| | Yes | No |
|---|---|---|
| Will you accept substitutions? | ❑ | ❑ |
| Will you accept conventional for organic seed? | ❑ | ❑ |
| Are you a market grower? | ❑ | ❑ |
| Is this your 1st seed order from the 2015 catalog? | ❑ | ❑ |

Order online: **fedcoseeds.com** until 10/31/15

**Volume Discounts**

| | | |
|---|---|---|
| 10% | over | $100 |
| 15% | over | $200 |
| 20% | over | $300 |
| 22% | over | $600 |
| 24% | over | $1000 |
| 25% | over | $2500 |

| | |
|---|---|
| **page 79** | |
| **page 80** | + |
| **Subtotal** | = |
| **Deduct Volume Discount** | - |
| **Deduct 1%** consumer membership discount from Subtotal (see p. 89) | - |
| **Adjusted Total** | = |
| **Mainers and pickups only: 5.5%Sales Tax** | + |
| Add **$5** if Adjusted Total for Seeds is under **$30** | + |
| **No handling charge** for orders over $30 **Order Total** | = |
| Donate to MOFGA (see p. 6) | + |
| MOFGA or NOFA memberships only (see p. 33) | + |
| **Grand Total** | = |

Help support MOFGA!
❑ Donate all my refund to MOFGA or
❑ up to $5.00
❑ up to $2.00
We will match your donated refund.
I am a MOFGA member ❑
See page 6 for details.

**Final deadline for this form 3/20/15**
**Order online until 10/31/15**

Make checks payable to **Fedco**

**We accept Visa, MasterCard, Discover or American Express**

**Exp. Date**

# Fedco Seeds 2015 items 100-6000, pages 4-111 only

VEGETABLE, HERB & FLOWER SEEDS

| | Catalog Number | Size Letter | # of Pkts | Total |
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Please Subtotal

If you need more blanks, please photocopy, download from our website, fedcoseeds.com, or call 207-426-9900 for another copy.

page 80

## Certified Organic Seed

Fedco Seeds is a certified organic processor under the National Organic Program. Our facilities are inspected by MOFGA Certification Services. Each variety labeled as organic in our catalog has been certified by a USDA-approved agency. By maintaining an audit trail and careful procedures we ensure that our certified organic seed will not be contaminated.

**If you buy organic seed because you are a certified grower, save your invoice and your packet labels so you can keep track of lot numbers to maintain your own audit trail.**

The rule requires organic growers to use certified-organic seed whenever it is commercially available. While in practice it still leaves a wide range of choices, certifiers have been intrepreting it increasingly strictly, though they differ in what constitutes a good faith effort to locate organic seed. Consult your regional certifier for their specific seed requirements.

In response, we continue to expand our range of suppliers and our offerings of certified organic varieties. In particular, we have added a few F-1 hybrid organic options that our trialers deem worth the extra seed cost.

## Sustainably Grown Seed

All seed in our catalog offered as 'certified organic' comes from certified farms. Even farms grossing under $5,000 that would otherwise be exempt from certification must get certified for us, as a processor, to label their product "certified organic."

Believing it essential to the democracy and self-reliance of our agricultural community and to our integrity as a seed supplier, we have painstakingly built our network of small seed growers over the past 20 years. Most of our growers use farm and seed revenues to supplement income from other jobs. Many gross less than $5,000 farming.

Although most practice sustainable farming methods conscientiously, some eschew certification for a variety of reasons, ideological, economic and otherwise. In this catalog we are using the ecological label **ECO** after the variety name to describe uncertified seeds grown without pesticides, herbicides or chemical fertilizers in gardens and on farms which maintain an active soil-building program. Often this seed is as sustainably grown as the certified-organic seed. We hope you will continue to support both certified organic and **ECO** growers with your purchases.

We use the label **BD** for those varieties certified biodynamically grown. Some varieties have both biodynamic and organic certification and so will have the symbol **OG/BD.**

## Organics in the Catalog

We list all available organic selections in this section. All variety descriptions (organic and otherwise), sizes and prices are in the main body of the catalog beginning on page 5. Sometimes we offer both conventional and certified organic seed of the same variety.

Things to know about ordering organic:

- All organic catalog letters end with the letter 'O.' No conventional ones do.
- Organic always costs the same or more than conventional.
- If you change your mind between an organic and conventional selection of the same variety please change three things on your order: 1) the item number 2) the item letters 3) the price.

**OG** after cultivar name = entire lot is certified-organic seed. The certifying agency is listed in the copy. Abbreviations are:

**AGRIOR**: an Israeli organic inspection agency
**BSO**: Baystate Organic Certifiers (Massachusetts)
**CCOF**: California Certified Organic Farmers
**CO**: Colorado Department of Agriculture
**GOA**: Global Organic Alliance
**IA**: Iowa Department of Land Stewardship
**ICS**: International Certification Services
**ID**: Idaho Department of Agriculture
**MCCO**: Monterey County (CA) Certified Organic
**MD**: Maryland Department of Agriculture
**MOFGA**: Maine Organic Farmers and Gardeners Association
**MOSA**: Midwest Organic Services Association
**MT**: Montana Department of Agriculture
**NOFA** (followed by state chapter): Northeast Organic Farming Association
**OCIA**: Organic Crop Improvement Association
**OEFFA**: Ohio Ecological Farm & Food Association
**OT**: Oregon Tilth Certified Organic
**PA**: Pennsylvania Certified Organic
**QCS**: Quality Certification Services (Florida)
**SC**: Clemson University Organic Certification Program
**SKAL**: a Netherlands organic certifying agency
**Stellar NOP**: the certifying arm of Demeter, the international agency certifying biodynamically grown crops.
**VOF**: Vermont Organic Farmer
**WA**: Washington State Department of Agriculture

## CERTIFIED-ORGANIC VARIETIES

**All open-pollinated unless otherwise noted.** See main body of catalog, beginning on page 5, for descriptions, available sizes and prices for all our varieties and for section headers containing cultural information and sundry facts. For organic cover crops, see pp. 120–126.

### STORE RACKS

**103** and **104** See page 4.

### BEANS *Phaseolus vulgaris*

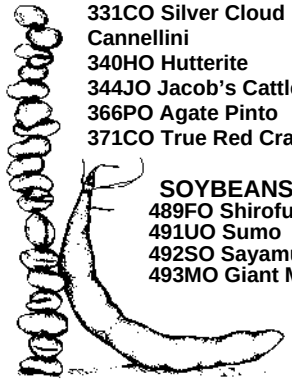
**205PO Provider**
**225BO Royal Burgundy**
**247MO Montpellier**
**249MO Maxibel**
**262GO Golden Rocky**
**265NO Indy Gold**
**277DO Dragon Langerie**

#### Fava Beans

**299WO Windsor**

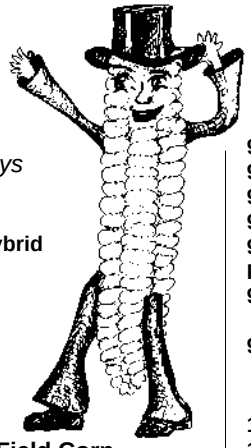
#### Dry Beans

**331CO Silver Cloud**
**Cannellini**
**340HO Hutterite**
**344JO Jacob's Cattle**
**366PO Agate Pinto**
**371CO True Red Cranberry Pole**



### SOYBEANS *Glycine max*

**489FO Shirofumi**
**491UO Sumo**
**492SO Sayamusume**
**493MO Giant Midori**



### CORN *Zea mays*

#### Sweet Corn

**516AO Ashworth**
**588LO Luscious F-1 hybrid**
**616HO Painted Hills**
**636LO Luther Hill**
**652TO Tuxana**

#### Popcorn

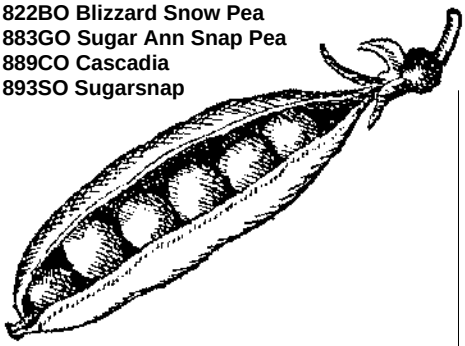
**675DO Dakota Black**
**677BO Pennsylvania**
**Dutch Butter Flavored**

#### Ornamental & Dry Field Corn

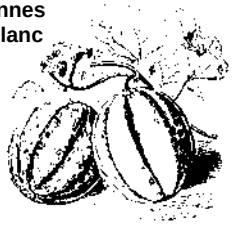
**680PO Painted Mountain**
**682CO Abenaki Calais Flint**
**688FO Floriani Red Flint**

### PEAS *Pisum sativum*

**761GO Green Arrow**
**819GO Oregon Giant Snow Pea**
**822BO Blizzard Snow Pea**
**883GO Sugar Ann Snap Pea**
**889CO Cascadia**
**893SO Sugarsnap**



### CANTALOUPE and MUSKMELON *Cucumis melo*



**930PO Petit Gris de Rennes**
**943FO Prescott Fond Blanc**
**958AO Arava**
**972JO Jenny Lind**
**974MO Magnificenza**
**F-1 hybrid**
**981GO**
**Golden Gopher**
**984PO**
**Pride of Wisconsin**

### WATERMELON *Citrullus lanatus*

**1003BO Blacktail Mountain**
**1022MO Early Moonbeam**
**1028SO Sugar Baby**
**1035DO Sweet Dakota Rose**
**1063CO Crimson Sweet**
**1067GO Orangeglo**
**1072MO Moon and Stars**

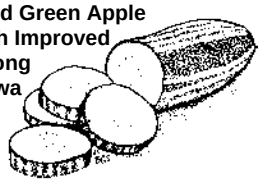
### CUCUMBERS *Cucumis sativus*

#### Pickler

**1239LO Little Leaf H-19**

#### Slicers

**1308PO Poona Kheera**
**1311BO Boothby's Blonde**
**1313MO Marketmore 76**
**1318SO Silver Slicer**
**1375RO Richmond Green Apple**
**1392TO Telegraph Improved**
**1394SO Suhyo Long**
**1396KO Shintokiwa**



# CERTIFIED-ORGANIC VARIETIES

**SUMMER SQUASH** *Cucurbita pepo*
1457CO Costata Romanesca
1520LO Lemon Squash
1539CO Early Summer Yellow Crookneck
1577YO Y-Star F-1 hybrid

**WINTER SQUASH** *Cucurbita* spp.
1609SO Sweet Reba
1611ZO Zeppelin Delicata
1630DO Uncle David's Dakota Dessert
1672GO Galeux d'Eysines
1676CO Candy Roaster
1683BO Burpee's Butterbush
1688WO Waltham Butternut
1693SO Seminole

**PUMPKINS** *Cucurbita pepo*
1718WO Winter Luxury
1720NO New England Pie
1723LO Long Pie
1729YO Young's Beauty
1752HO Howden

**GOURDS** *Cucurbita pepo* var. *ovifera*
1909TO Tennesee Dancing
1965BO Baby Bottle
1969SO Speckled Swan

**CARROTS** *Daucus carota*
2068AO Atomic Red
2076DO Danvers 126
2079KO Scarlet Keeper
2090NO Napoli F-1 hybrid
2093YO Yaya F-1 hybrid
2095JO Jeanette F-1 hybrid

**BEETS** *Beta vulgaris*
2109WO Early Wonder Tall Top
2121RO Red Ace F-1 hybrid
2128GO 3 Root Grex
2137CO Chioggia Guardsmark
2144GO Golden Detroit
2149TO Touchstone
2170LO Lutz
2187BO Bull's Blood

**RADISHES** *Raphanus sativus*
2253PO Plum Purple
2268MO Misato Rose

**PARSNIPS** *Pastinaca sativa*
2306DO Andover

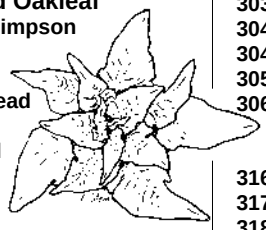
**TURNIP** *Brassica rapa*
2379WO Purple Top White Globe

**LEEKS & ONIONS** *Allium* spp.
2407RO King Richard Leek
2411SO King Sieg Leek
2418MO Megaton Leek F-1 hybrid
2426GO Siegfried Frost Leek
2449YO New York Early Onion
2474DO Clear Dawn Onion
2489DO Dakota Tears Onion

**SPINACH** *Spinacea oleracea*
2541BO Bloomsdale
2558WO Winter Bloomsdale

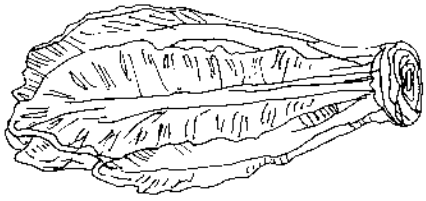
**LETTUCE** *Lactuca sativa*

**Looseleaf and Oakleaf**



2712BO Black Seeded Simpson
2713GO Green Ice
2715LO Balady Aswan
2719BO Bronze Arrowhead
2723SO Salad Bowl
2729RO Red Salad Bowl
2731CO Cracoviensis
2732GO Strela Green
2738AO Antares
2740DO Green Deer Tongue
2744RO Really Red Deer Tongue
2761RO Red Sails
2764BO Blushed Butter Oaks
2766YO Australian Yellow
2767DO Devil's Ear
2768CO Lingua di Canarino
2771YO Royal Oakleaf
2773HO Hyper Red Rumple Waved
2775FO New Red Fire
2781XO Merlox Red Oak
2784FO Flashy Green Butter Oak
2785TO Italienischer
2786WO Red Tinged Winter/BD
2787BO De Morges Braun
2788OO Oscarde
2789MO Merlot
2791TO Tango
2792RO Revolution
2793LO Dark Lollo Rossa
2795VO Lollo di Vino

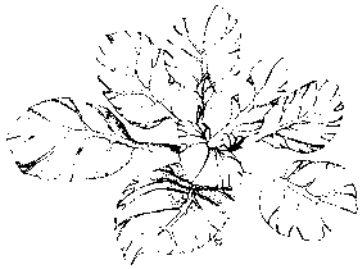
**Bibb and Butterhead**
2814NO North Pole/BD
2816MO Winter Marvel
2828PO Pirat
2831SO Speckled
2836YO Red-Eared Butterheart
2841NO Nancy



**Romaine, Cos, Batavian, Crisphead**
2852PO Pandero
2854BO Blushed Butter Cos
2856JO Mayan Jaguar
2858FO Forellenschluss
2861JO Jericho
2862DO Better Devil
2866PO Plato II
2874LO Olga
2877MO Marshall
2883CO Crisp Mint
2886WO Winter Wonderland
2905DO Cardinale
2907SO Sierra
2908TO Concept
2921NO Anuenue

**Mixes**
2981LO Lettuce Mix
2983DO DeLuxe Lettuce Mix
2984FO Freedom Mix
2985RO Red Carpet Mix
2993GO Greens Mix

**GREENS**
3020SO Astro Arugula
3023AO Arugula
3038GO Golden Chard
3041RO Rhubarb Chard
3045CO Chervil
3056WO Wrinkled Crinkled Crumpled Cress
3063FO Très Fine Maraîchère Olesh Endive
3148RO Red Orach
3150AO Aurora Orach
3169KO Krausa Parsley
3170DO Dark Green Italian Parsley
3182GO Golden Purslane



**ASIAN GREENS** *Brassica* spp.
3221TO Tatsoi
3228MO Early Mizuna
3229RO Ruby Streaks
3230MO Mizspoona Salad Selects GP
3233LO Pink Lettucy Mustard Gene Pool
3236RO Red Giant Mustard
3239PO Osaka Purple Mustard
3246PO Purple Rapa Mustard Gene Pool
3253ZO Torziroh
3270PO Prize Choy Pac Choi

**BROCCOLI** *B. oleracea*
3306SO Solstice
3312FO Fiesta F-1 hybrid
3316PO Purple Peacock
3318TO Thompson
3325UO Umpqua

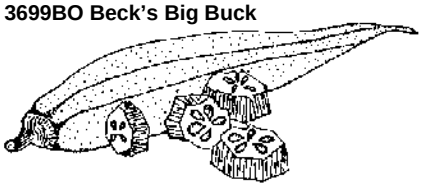
**KALE** *Brassica* spp.
3450VO Vates
3460FO Russian Frills
3462RO Red Russian
3464WO White Russian

**GLOBE ARTICHOKE** *Cynara scolymus*
3608SO Imperial Star

**CELERY** *Apium graveolens*
3630RO Redventure
3634TO Tango

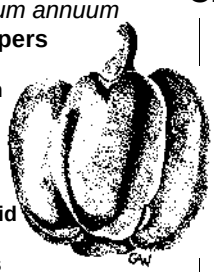
**EGGPLANT** *Solanum melongena*
3680AO Applegreen
3684DODiamond
3688RO Rosita
3691BO Rosa Bianca

**OKRA** *Abelmoschus esculentus*
3695JO Cajun Jewel
3697GO Red Burgundy
3699BO Beck's Big Buck



# CERTIFIED-ORGANIC VARIETIES

## PEPPERS *Capsicum annuum*



### Sweet Peppers

**3704PO Peacework**
**3713NO King of the North**
**3723PO Purple Beauty**
**3725SO Staddon's Select**
**3735CO Chocolate**
**3741PO Amish Pimiento**
**3757CO Carmen F-1 hybrid**
**3759BO Boldog**
**3762JO Jimmy Nardello's**
**3776FO Feherozon**

### Hot Peppers

**3816BO Czech Black**
**3831JO Jaluv an Attitude**
**3841DO Hidalgo**
**3845PO Hot Portugal**
**3849FO Fish**
**3860TO Thai Hot**
**3866MO Matchbox**
**3870HO Hinkelhatz**

## PHYSALIS

### Ground Cherry *P. pruinosa*

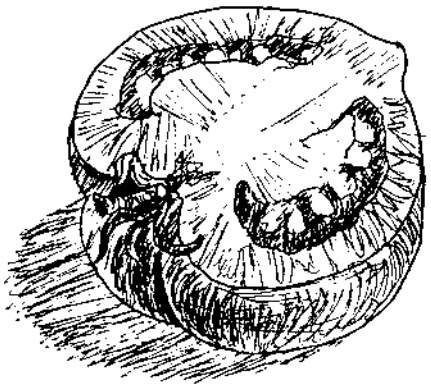
**4005MO Aunt Molly's**

### Tomatillo *P. ixocarpa*

**4015VO Verde Puebla**

## TOMATOES *Lycopersicon esculentum*

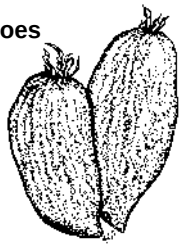
**4018LO Glacier**
**4025SO Oregon Spring**
**4032GO Ida Gold**
**4038CO Cosmonaut Volkov**
**4045PO Garden Peach**
**4049RO Pruden's Purple**
**4053PO Black Prince**
**4054GO Goldie**
**4055TO Rutgers**
**4056GO Green Zebra**
**4059CO Cherokee Purple**
**4060BO Paul Robeson**
**4061KO Black Krim**
**4065JO Jubilee**
**4067RO Rose de Berne**
**4069GO German Johnson**
**4071SO Soldacki**
**4075BO Pink Brandywine**
**4076YO Yellow Brandywine**
**4077NO Pineapple**
**4080AO Aunt Ruby's German Green**
**4081MO Mark Twain**
**4083WO Weisnicht's Ukrainian**
**4087TO Tiffen Mennonite**
**4097RO Ruby Gold**
**4238LO Luci 2103 F-1 hybrid**



### Cherry Tomatoes

**4103GO Gardener's Sweetheart**
**4108BO Be My Baby**
**4115BO Black Cherry**
**4117PO Principe Borghese**
**4119VO Peacevine**
**4121DO Green Doctors Frosted**
**4122FO Fargo Yellow Pear**
**4253JO Jasper F-1 hybrid**

### Paste Tomatoes



**4123MO Mr. Fumarole**
**4125HO Heinz 2653**
**4131GO Grandma Mary's**
**4133LO Bellstar**
**4135PO Opalka**
**4137NO Orange Banana**
**4138RO Speckled Roman**
**4140AO Amish Paste**
**4141HO Hog Heart**
**4146BO Blue Beech**
**4149MO Heirloom Tomato Mix**

## GRAINS

**4300OO Opopeo Amaranth** *A. hybridus*
**4309TO Terra Hulless Oats** *Avena nuda*
**4312RO Duborskian Rice** *Oryza sativa*
**4322BO Black Eagle Wheat** *Triticum aestivum*
**4324UO Utrecht Blue Wheat** *Triticum durum*

## HERBS

**4407AO Anise Hyssop** *Agastache fæniculum*
**4409RO Arnica Chamissonis** *A. c.*
**4411WO Ashwagandha** *Withania somnifera*

### Basil *Ocimum basilicum*

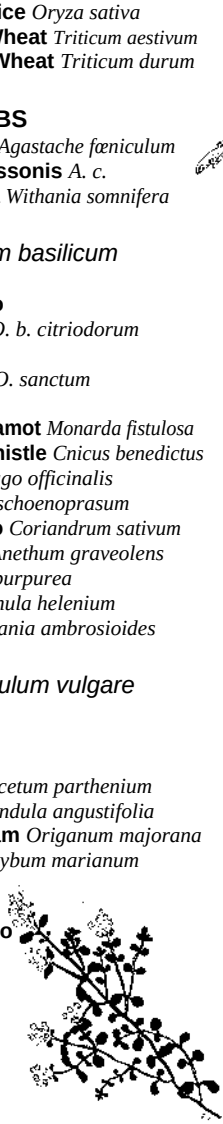
**4415WO Sweet**
**4441RO Aromato**
**4448LO Lemon** *O. b. citriodorum*
**4453LO Lime**
**4467BO Sacred** *O. sanctum*

**4481WO Wild Bergamot** *Monarda fistulosa*
**4484HO Blessed Thistle** *Cnicus benedictus*
**4491BO Borage** *Borago officinalis*
**4513CO Chives** *Allium schoenoprasum*
**4517RO Caribe Cilantro** *Coriandrum sativum*
**4531BO Bouquet Dill** *Anethum graveolens*
**4547CO Echinacea** *E. purpurea*
**4550EO Elecampane** *Inula helenium*
**4551ZO Epazote** *Dysphania ambrosioides*

### Fennel *Foeniculum vulgare*

**4553PO Perfection**
**4567BO Bronze**

**4572FO Feverfew** *Tanacetum parthenium*
**4585LO Lavender** *Lavandula angustifolia*
**4616SO Sweet Marjoram** *Origanum majorana*
**4630TO Milk Thistle** *Silybum marianum*
**4640MO Motherwort**
*Leonurus cardiaca*
**4649ZO Zaatar Oregano**
*Origanum syriacum*
**4657RO Rosemary**
*Rosmarinus officinalis*
**4665SO Sage**
*Salvia officinalis*
**4683SO Spilanthes**
*S. oleracea*
**4692BO Blue Vervain**
*Verbena hastata*

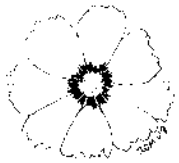


## FLOWERS

**4835HO Hopi Red Dye Amaranth**
*A. cruentus*
**4837EO Elephant Head Amaranth**
*A. gangeticus*

### Calendula *C. officinalis*

**4911FO Flashback**
**4913KO Kablouna Mix**
**4916MO Maya Orange**
**4925RO Resina**
**4927LO Solar Flashback**
**4929ZO Zeolights**



### Cosmos *C. bipinnatus*

**5029SO Sea Shells**
**5036NO Sensation**

**5147JO Job's Tears** *Coix lacryma-jobi*
**5212CO Crackerjack Marigold** *Tagetes erecta*
**5236TO Tashkent Marigold** *Tagetes patula*
**5277KO Kniola's Purple Morning Glory**
*Ipomoea purpurea*
**5289JO Jewel Mix Nasturtium** *Tropaeolum majus*

### Poppy *Papaver* spp.

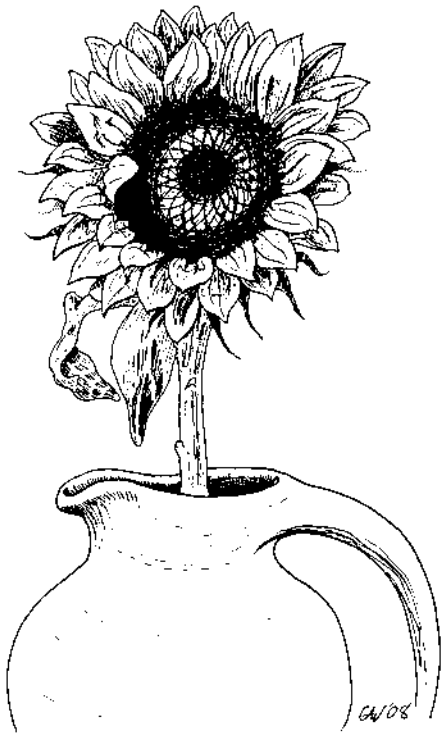
**5350EO Elka**
**5351ZO Ziar Breadseed**
**5368FO Flemish**
**5371RO Fluffy Ruffles**
**5377LO Large Lavender**
**5378SO Scarlet Peony**

**5423SO Northern Sea Oats**
*Chasmanthium latifolium*

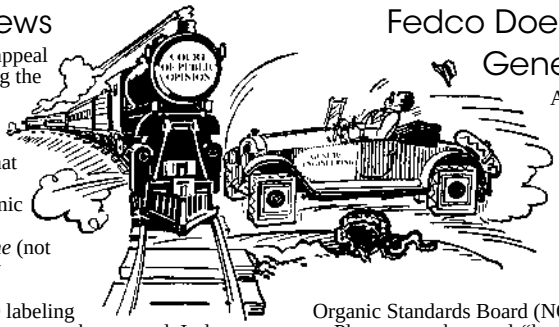
### Sunflower *Helianthus annuus*

**5500AO Autumn Beauty Mix**
**5515LO Lemon Queen**
**5539SO Selma Suns**
**5551TO Tiger's Eye**
**5906HO Hopi Dye**

**5603AO Sweet Annie** *Artemisia annua*



## Genetic Engineering News




• The Supreme Court refused to hear plaintiffs' appeal in the PUBPAT lawsuit against Monsanto, closing the case. Fedco and other plaintiffs did gain a partial victory from the Court of Appeals decision that remained standing. The Appeals Court based their refusal to re-open the case on the grounds that Monsanto, by its own declaration, was estopped from suing those experiencing accidental transgenic contamination of less than 1% from Monsanto genetics. This means Monsanto cannot sue *anyone* (not just the plaintiffs in this case) who is accidentally contaminated with trace amounts of their GMOs.

• Maine's second-in-the-nation mandatory GMO labeling law was signed by Gov. LePage in January, but has yet to be enacted. It does not take effect until triggered by the passage of similar legislation in four other states, including the contiguous State of New Hampshire. Similar legislation was narrowly defeated in New Hampshire's House. In Massachusetts and New York GMO labeling bills attracted widespread legislative support but were unable to get out of their Ways and Means Committees to reach the floor for a vote.

• After Connecticut and Maine passed bills with triggers, Vermont became the first state to enact mandatory labeling *sans* trigger. Vermont will bear the brunt of the costs of a lawsuit brought by the Grocery Manufacturers of America and other big biotech players challenging its constitutionality. You can support Vermonters by donating to the Vermont Food Fight Fund online at foodfightfundvt.org or by mail to the Agency of Administration Financial Services, 6 Baldwin St, Montpelier, VT 05609.

• After GMO labeling referenda were narrowly defeated in California and Washington State, two more are on the 2014 ballot in Oregon and Colorado.

For more information contact me at **crlawn@fedcoseeds.com**.

See also: **fedcoseeds.com/seeds/monsanto.htm** for our definitive 2006 statement on why we do not purchase seed from Monsanto or any of its subsidiaries.

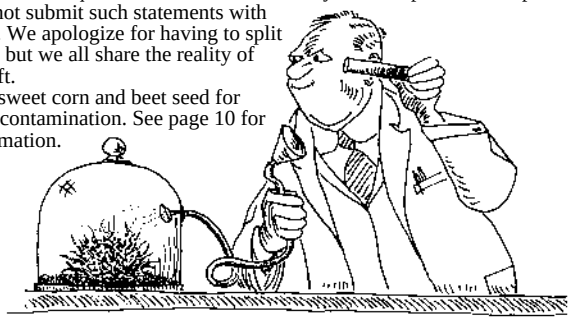
–CR Lawn

## Fedco Does Not Knowingly Carry Genetically Engineered Seeds

At our 1996 Annual Meeting we voted unanimously not to knowingly offer for sale any genetically engineered variety because the new gene technologies pose unacceptable risks to the environment. In 1999 we affirmed and clarified that position and will follow the guidelines of the Organic Materials Review Institute (OMRI) which prohibit the use of genetically engineered organisms in organic crop production. OMRI uses the National Organic Standards Board (NOSB) definition of genetic engineering.

Please note the word "k*nowingly.*" Because of the possibility of contamination, over which we have no control, our pledge necessarily stops short of being an absolute guarantee. Although we will not sell any variety represented to us as genetically engineered, we will not be held legally responsible if any of our seed tests positive for genetically modified organisms. We have been advised not to sign any blanket statements such as "GMO free" that require us to state with certainty that our products are pure. Please do not submit such statements with your order. We apologize for having to split legal hairs, but we all share the reality of genetic drift.

We test sweet corn and beet seed for transgenic contamination. See page 10 for more information.



## Join our Cooperative as a Consumer Member!

Why join Fedco? We'll let some of those who joined speak for themselves:

- "I applaud your stance on GMO and seed business ethics and am proud to count myself a Fedco member." –Bette Low, Westport, MA
- "I'm a small one-person operation. I have been ordering seed from you for years, and it's time to join." –Karen Coombs, Hamilton, MT
- "I'm glad to be able to join as a consumer member, on behalf of my community, the New York City Catholic Worker. The CW movement has advocated decentralized cooperative economics since the 1930s." –T. Christopher Cornell
- "We loved CR Lawn's letter…he is absolutely right…we will send in our membership to show our support of a tremendous organization." –Marita and Bob Wiser, Bridgton, ME

We are asking for a $100 membership equity, refundable at any time upon request. ($105 to join online by credit card.) If this would be a hardship, there is a $25 option. Please note that membership is by household (only one membership per household please) or by farm or organization.

Benefits include:

- A 1% discount on all orders from all our divisions.
- The opportunity to buy member-only specials.
- An invitation to our Annual Meeting each September.
- An opportunity to vote on any proposed by-law changes.
- A chance to vote for and serve on our Board of Directors.
- The satisfaction of owning a small part of one of the most successful new wave co-ops.

**558** Sumptuous Sweet Corn and **885** Mega sugarsnap pea are available to Fedco co-op members only!

Join the 842 consumer member-owners who are helping write the next chapter of our enduring success!

CR Lawn
President, Fedco Seeds, Inc.

### Yes, I want to join Fedco as a consumer member-owner!

Enclosed is a check for my refundable membership deposit of $100.
Please make membership certificate out to:

Name_____

Address_____

City_____ St_____ Zip_____

Customer # (if you know it)_____

Email address_____

PO Box 520, Waterville ME 04903

# Flowers at a Glance

| Name | item# | Botanical Name | APB | height | uses | season | sow | start | temp | days | notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Achillea | 4802ff | *Achillea* spp. | P | 18-24" | BDC | ES-F | DS DF TP | 8-10 | C | 10–14 | Lt |
| Ageratum | 4811ff | *Ageratum houstonianum* | A | 24" | BCD | ES-F | TP | 6-8 | W | 4–6 | ◗S |
| Alyssum | 4821 | *Lobularia maritima* | A | 2-4" | FBW | ES-F* | DS TP | 5-6 | 55-70 | 8–14 | ◗S |
| Amaranth Love-Lies-Bleeding | 4831 | *Amaranthus caudatus* | A | 24-48" | BND | MS-F | TP | 5-6 | W | 7–10 | PP |
| Amaranth | 4833ff | *A. cruentus, gangeticus* | A | 3-6' | CND | MS-F | TP DS | 6-7 | W | 10–14 | ◗Lt |
| Ammi Majus | 4843 | *A. majus* | A | 3-4' | C | ES-LS | TP DS | 8-10 | M | 7–14 | Ch2w |
| Aster, New York | 4849 | *Aster nova-belgii* | P | 36-48" | B | LS-F* | TP | 6-8 | M | 14-36 | Ch2w |
| Aster, China | 4851ff | *Callistephus chinensis* | A | 12-30" | BC | ES-F | TP | 12-14 | W | 10–21 | ◗ |
| Baby's Breath | 4861 | *Gypsophila paniculata* | P | 24-40" | BDC | MS-LS | TP DS | 8-10 | M | 14–21 | S |
| Bachelor's Button | 4871ff | *Centaurea cyanus* | A | 24-36" | BC | ES-F* | DW TP | 8-9 | C | 7–14 | ◗Cv |
| Balloon Flower | 4881 | *Platycodon grandiflorum* | P | 30-42" | CB | MS-LS | TP | 6-8 | M | 15–30 | S |
| Balsam | 4883 | *Impatiens balsamina* | A | 24" | B | MS-F | DW | | W | 8–10 | ◗S |
| Begonia | 4889 | *Begonia* x *tuberhybrida* | A | 8-12" | BW | ES-LS | TP | 12-14 | W | 14–28 | ● |
| Bells of Ireland | 4896 | *Moluccella laevis* | A | 30" | DBN | MS-F | TP | 6-8 | C | 12–21 | ◗S, Ch5d50° |
| Blazing Stars | 4899 | *Liatrus spicata* | P | 18" | BCD | LS | DS TP | 6-8 | C | 21–28 | |
| Bouncing Bet | 4901 | *Saponaria officinalis* | P | 36" | BGF | MS | TP | 8-10 | M | 14-28 | ◗St |
| Bupleurum | 4903 | *Bupleurum griffithii* | A | 2' | DCN | ES-F | TP | 8-10 | C | 14–21 | ◗ |
| Butterfly Weed | 4906 | *Asclepias tuberosa* | P | 18-30" | BCN | ES-LS | DS DF | | W | 14–28 | Ch4w34-40° |
| Calendula | 4911ff | *Calendula officinalis* | A | 18-24" | BDCE | ES-F* | DS TP DF | 6-8 | C | 4–10 | Cv |
| Canary Creeper | 4932 | *Tropaeolum pereginum* | A | 8' | BV | LS-F | DW TP | 6-8 | C | 7–14 | ◗Cv |
| Candytuft | 4935 | *Iberis umbellata* | A | 20" | BGF | MS-LS | DWG | | M | 14–21 | |
| Catmint, Persian | 4937 | *Nepeta mussinii* | P | 12" | BG | Sp-MS | TP DS DF | 6-8 | C | 10–14 | |
| Celosia, Crested/Cockscomb | 4943 | *C. argentea cristata* | A | 10" | BND | MS-LS | TP | 4 | W | 10–14 | |
| Celosia, Plume | 4948ff | *C. a. plumosa, spicata* | A | 3-6' | DCNB | LS | TP | 8-10 | W | 10–14 | |
| Cerinthe | 4962 | *C. major purpurescens* | A | 12-18" | B | MS-F* | TP DW | 6-8 | W | 7–14 | |
| Chinese Forget-Me-Not | 4965 | *Cynoglossum amabile* | A | 18" | B | MS-LS | DW TP | 6 | M | 5–10 | |
| Chinese Lantern | 4968 | *Physalis alkekengi* | P | 24" | DNC | MS-F | TP DF | 8 | W | 14–21 | ◗S, invasive |
| Cleome | 4982ff | *Cleome hassleriana* | A | 48" | BN | ES-LS | TP DW | 4-6 | W | 7–14 | Ch, S |
| Coleus | 4992 | *Solenostemon scutellar.* | A | 10-12" | WBN | MS-F | TP | 8-10 | M | 10-14 | ●Lt |
| Columbine | 4995ff | *Aquilegia* spp. | P | 18-30" | B | Sp-ES | TP DS | 6-8 | W | 14–28 | ●Lt,Ch3-4w |
| Coneflower, Prairie | 5007 | *Ratibida columnifera* | P | 1-3' | B N | MS-LS | TP | 6-8 | W | 7–42 | Ch1w |
| Coreopsis | 5012 | *Coreopsis grandiflora* | P | 18" | BC | ES-F | TP | 8-10 | C/M | 7–21 | ◗Lt |
| Cosmos | 5021ff | *Cosmos bipinnatus* | SSA | 3-5' | BCS | MS-F | DW TP | 2-4 | W | 7–10 | Lt |
| Cosmos, Yellow | 5038ff | *C. sulphureus* | A | 2-3' | BC | MS-F | DW TP | 2-4 | W | 7–10 | |
| Dagga | 5041 | *Leonotis leonurus* | A | 6' | B | MS | TP | 12-14 | C/M | 10–21 | |
| Dahlia | 5045 | *Dahlia* x *hybrida* | A | 12-14" | BC | MS-F | TP | 6-8 | W | 7–14 | ◗ |
| Daisy | 5425ff | *Leucanthemum* x *super.* | P | 36" | BC | ES-MS | TP | 6-8 | W | 7–14 | |
| Delphinium | 5052ff | *Delphinium* x *cultorum* | P | 3-6' | BCD | MS-LS | TP | 10 | M/W | 14–21 | Ch2-4w |
| Dianthus (Carnation, Pink) | 5061ff | *Dianthus* spp. | A | 12-20" | BCF | MS-LS | TP | 8 | M | 7–10 | |
| Didiscus | 5067 | *Trachymeme coerulea* | A | 24" | CB | MS-LS | DW TP | 8 | W | 14–21 | |
| Dyer's Broom | 5902 | *Genista tinctoria* | P | 3' | dye | MS-F | DS | | | 14–21 | |
| Dyer's Coreopsis | 5904 | *Coreopsis tinctoria* | SSA | 30" | CB | MS-F | DS TP DF | 6-8 | C | 4–10 | S, rugged |
| Echinacea | 4545ff | *Echinacea* spp. | P | 1-3' | BC | MS-LS | TP DW | 8-10 | W | 10–21 | ◗ |
| Euphorbia | 5075 | *Euphorbia marginata* | A | 24-36" | CNB | MS-F | DW TP | 3 | M | 9–14 | ◗ |
| Flax, Blue | 5079 | *Linum perenne lewisii* | P | 9-12" | B | ES-LS | DS TP DF | 6-8 | C | 21–28 | ◗ |
| Flowering Cabbage/Kale | 5082ff | *Brassica oleracea* | A | 8-18" | BNE | F-F* | DSTP | 5-7 | C | 7–14 | start Jun for Aug TP |
| Forget-Me-Not | 5091 | *Myosotis sylvatica* | B,P | 6-12" | BCG | Sp-ES | DS | 8-10 | M | 8–30 | |
| Four O'Clock | 5095 | *Mirabilis jalapa* | A | 24-36" | BF | ES-LS | TP DW | 6-8 | W | 5–10 | |
| Gaillardia, perennial | 5097 | *Gaillardia aristata* | P | 24-36" | BC | MS-F | TP DW | 6-8 | W | 14–21 | Lt |
| Gaillardia, annual | 5099 | *G. pulchella* | A | 12-15" | BW | MS-F | TP | 6-8 | W | 14–21 | Lt |

ff=and following

# Flowers at a Glance

| Name | item# | Botanical Name | APB | height | uses | season | sow | start | temp | days | notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gazania | 5100 | *Gazania rigens* | A | 8-10" | BW | MS-F | TP | 6-8 | W | 12 | Lt |
| Globe Amaranth | 5102ff | *Gomphrena globosa* | A | 2' | BD | MS-F* | TP | 8-12 | M | 7–30 | Dk, Ch5w |
| Goatsbeard | 5112 | *Aruncus dioicus* | P | 4-6' | BS | ES | TP DW | 3-4 | M | 20-30 | ◗Lt |
| Heliopsis (False Sunflower) | 5113 | *H. scabra* | P | 3-6' | BCS | MS-F | TP DW | 10-12 | M | 21 | |
| Heliotrope | 5116 | *Heliotropium arborescens* | A | 14-18" | FWBC | MS-F | TP | 6-8 | W | 21–28 | ◗ |
| Hollyhock | 5122ff | *Alcea rosea* | SSB | 4-8' | BS | MS-LS | TP DF | 8-9 | WM | 7–21 | St |
| Honesty (Silver Dollar) | 5132 | *Lunaria annua* | B | 3' | DN | LS-F | DS TP DF | 6 | M | 14–21 | ◗ |
| Impatiens | 5142 | *Impatiens wallerana* | A | 8-14" | WB | ES-F | TP | 10 | W | 7–21 | ●Lt |
| Indigo, Japanese | 5911 | *Polygonum tinctorium* | A | 1-2' | dye | MS-F | TP | 6-8 | W | 20–60 | |
| Jacob's Ladder | 5144 | *Polemonium caeruleum* | P | 1' | B | ES | TP | 8-10 | M | 20–25 | ◗ |
| Job's Tears | 5147 | *Coix lacryma-jobi* | A | 24-36" | DN | F | P | 6-8 | C | 7–14 | |
| Joe Pye Weed | 5150 | *Eupatorium purpureum* | P | 5-9' | BNC | LS-F | DS DF | | M | 14–21 | S, St |
| Johnny-Jump-Up | 5152 | *Viola tricolor* | SSP | 4-6" | EB | Sp-F* | DS DF | | M | 12–14 | ◗ |
| Kiss-Me-over-the-Grdn | 5154 | *Polygonum orientale* | A | 6-7' | NSB | MS-F | DS DF TP | 4-6 | W | 14–20 | Cv, St |
| Larkspur | 5160ff | *Consolida* spp. | A | 24-36" | BCD | ES-F* | DS TP DF | 6-8 | C | 14–28 | ◗Cv, Ch1w |
| Lavatera | 5171ff | *Lavatera trimestris* | A | 20-36" | BC | MS-F | DS TP | 6-8 | M | 14–21 | ◗Cv |
| Lobelia | 5180 | *Lobelia erinus* | A | 4" | BW | ES-F | TP | 6-8 | M | 20 | ◗S, Lt |
| Love-in-a-Mist | 5184ff | *Nigella* spp. | A | 15-24" | BD | MS-F | DS TP | 6 | M | 10–14 | |
| Love-Lies-Bleeding | 4831 | *Amaranthus caudatus* | A | 24-48" | BND | MS-F | TP | 5-6 | W | 7–10 | PP |
| Lupine | 5195ff | *Lupinus polyphyllus* | P | 36" | B | ES | DS TP DF | 6–8 | C/M | 14–60 | ◗Sk, PP |
| Maltese Cross | 5203 | *Lychnis chalcedonica* | P | 28-40" | BC | MS | TP | 8-10 | M | 7–14 | ◗ |
| Marigold | 5211ff | *Tagetes* spp. | A | 8-30" | BCW | MS-F | TP DW | 3 | W | 5–8 | Dk |
| Mignonette | 5255 | *Reseda odorata* | A | 10-15" | F | ES-LS | DW | | M | 10–14 | ◗S, Lt |
| Millet, Purple Majesty | 5259 | *Pennisetum glaucum* | A | 3-5' | BCN | LS | TP | 2-3 | W | 5-10 | |
| Morning Glory | 5271ff | *Ipomoea* spp. | A | 8-12' | VS | ES-F | DW TP | 3 | W | 10–21 | Sc, Sk, PP |
| Nasturtium | 5280ff | *Tropaeolum* spp. | A | 12-16" | BEWC | ES-F | DW TP | 3 | M | 10–14 | Cv |
| Nicotiana | 5300 | *Nicotiana sylvestris* | A | 4-6' | FN | MS-F | DS TP | 6-8 | W | 7–14 | Lt |
| Painted Tongue | 5303 | *Salpiglossis sinuata* | A | 15" | BC | ES-F | TP | 6-8 | M | 14–21 | |
| Pansy | 5304ff | *Viola* spp. | A | 6-12" | BCW | Sp-ES | TP DF? | 8-9 | C | 12-21 | ◗Dk |
| Pearly Everlasting | 5314 | *Anaphalis margaritacea* | P | 18-24" | DCB | MS-F | DS TP | 6-8 | C | 10–60 | |
| Petunia | 5321ff | *Petunia* x *hybrida* | A | 4-6" | WBG | ES-F | TP | 8 | W | 7–14 | Lt |
| Phacelia | 5331 | *Phacelia tanacetifolia* | A | 18-30" | B | MS-F | DS | | C | 7-12 | |
| Phlox, annual | 5335 | *Phlox drummondii* | A | 6-8" | BC | ES-F* | TP DS | 8 | C | 7–14 | ◗ |
| Phlox, perennial | 5339 | *P. paniculata* | P | 36" | BC | LS-F | TP DF | 10-12 | C | 21–30 | ◗St |
| Pincushion Flower | 5341 | *Scabiosa atropurpurea* | A | 36" | BC | MS-F* | TP DW | 4-5 | M | 14-21 | |
| Poppy, Oriental | 5345 | *Papaver orientale* | P | 16" | BND | Sp-ES | DS | | | 7–14 | Lt |
| Poppy, annual | 5350ff | *Papaver* spp. | SSA | 24-48" | BCND | MS-LS | DF DS | | | 14–21 | |
| Poppy, California | 5381 | *Eschscholzia californica* | A | 8-12" | B | MS-LS | DS | | | 14–21 | |
| Poppy, Mexican Tulip | 5384 | *Hunnemannia fumariifolia* | A | 2' | BCND | MS-LS | DS DF | | | 14–21 | |
| Portulaca | 5387 | *Portulaca grandiflora* | A | 6-8" | BW | MS-F | TP DW | 8 | W | 10-15 | Lt |
| Red Hot Poker | 5343 | *Kniphofia uvaria* | P | 32" | BCN | MS-LS | TP | 8-10 | M | 21–28 | PP |
| Rudbeckia, perennial | 5393 | *Rudbeckia fulgida* | P | 24" | BC | MS-LS | TP | 6-8 | W | 7–21 | Lt |
| Rudbeckia, annual | 5395ff | *R. hirta* | A | 24-36" | BCN | ES-LS | TP DF? | 6-10 | W | 14–21 | |
| Sage, Gentian | 5411 | *Salvia patens* | A | 30" | BC | MS-F | TP | 12-14 | M/W | 14–21 | S |
| Salvia | 5406ff | *Salvia* spp. | A | 12-18" | BCD | MS-F | TP | 10-12 | M | 21 | S |
| Schizanthus | 5422 | *Schizanthus pinnatus* | A | 18" | BC | MS-F | TP | 8 | C | 7–14 | ◗S, Dk |
| Snapdragon | 5431 | *Antirrhinum majus* | A | 30-36" | BC | MS-F* | TP | 8-10 | C/M | 7–14 | ◗Ch2w, Lt |
| Sneezeweed | 5434 | *Helenium autumnale* | P | 4-5' | BC | LS-F | TP | 6-8 | M | 14–21 | |
| Statice | 5444ff | *Limonium sinuatum* | A | 24-30" | DCB | MS-F | TP | 8-9 | M/W | 7–14 | S |
| Stock | 5475 | *Matthiola incana* | A | 12-18" | BC | ES-F* | DS TP | 6-8 | M | 7–14 | S |
| Strawflower | 5483ff | *Helichrysum bracteatum* | A | 14-40" | DBC | MS-F | TP | 7-8 | W | 7–14 | Lt, S |
| Sunflower | 5500ff, 5906 | *Helianthus spp.* | SSA | 2-12' | CNS | LS-F | DW TP | 3-4 | M/W | 7–14 | |
| Sweet Annie | 5603 | *Artemisia annua* | SSA | 36-60" | FD | LS-F | DF TP | 6-8 | C | 10–21 | ◗Lt, St |
| Sweet Pea, perennial | 5611 | *Lathyrus latifolius* | P | 5-6' | CSV | MS-LS | DS | | C | 21–28 | Sk, Cv |
| Sweet Pea, annual | 5614ff | *L. odoratus* | A | 1-6' | CFSV | MS-LS | DS TP | 6-8 | C | 14–21 | Sk, Cv |
| Sweet William | 5061 | *Dianthus barbatus* | SSB | 18" | FBC | ES | DS TP | 6-8 | M | 7–14 | |
| Thyme, Creeping | 5643 | *Thymus serpyllum* | P | 2-3" | FGB | MS-LS | DS TP DF | 8-9 | C | 14–28 | ◗Lt |
| Tithonia | 5647ff | *T. rotundifolia* | A | 4-6' | BNS | MS-F | TP DW | 6 | W | 7–14 | |
| Verbascum | 5657 | *Verbascum* x *hybrida* | P | 2-3' | BC | ES | TP | 15-20 | C | 14–21 | |
| Verbena | 5661ff | *Verbena* spp. | A | 8", 48" | WBC | MS-F | TP | 6-8 | M | 14–21 | ◗Lt, Ch3w |
| Weld | 5928 | *Reseda luteola* | B | 4-5' | dye | MS | TP | 6-8 | M | 7–14 | S, Lt |
| Zinnia | 5700ff | *Zinnia* spp. | A | 20-42" | BC | MS-F | TP DW | 3-4 | W | 7–14 | |

ff=and following

**ABP**: A=annual, B=biennial, P=perennial, SS=self-sowing
**height**: typical height at maturity
**uses**: B=beds and borders, C=cutting, D=drying, dye=dye plant, E=edible, F=fragrance, G=ground cover, N=novel accent, S=screen, V=vining and climbing, W=windowbox, container
**season**: peak bloom time: Sp=spring, ES=early summer, MS=midsummer, LS=late summer F=fall until frost, F*=fall after frost
**sow**: DS=direct sow in spring ASAP, DW=direct sow when soil has warmed or after danger of frost has passed, TP=transplant, DF=direct sow in fall
**start**: suggested number of weeks before transplanting
**temp**: suggested soil temperatures for good germination: C=cool, 60-65˚, M=moderate, 65-70˚, W=warm, 70-85˚
**days**: number of days to seedling emergence
**notes**: ◗=can grow in partial shade, ●=can grow in full shade or part shade. (The rest need sun.)
S=surface sow, Cv= cover seed, PP=use peat pots
Lt=needs light to germinate, Dk=needs darkness to germinate,
Sk=soak seed 12-24hrs, Sc=scarify seed with sandpaper or emery board,
St=stratify seed; place in moist soil and freeze or refrigerate or alternate between the fridge and freezer,
Ch=chill seed, sometimes specifies duration (d=days, w=weeks) and temperature

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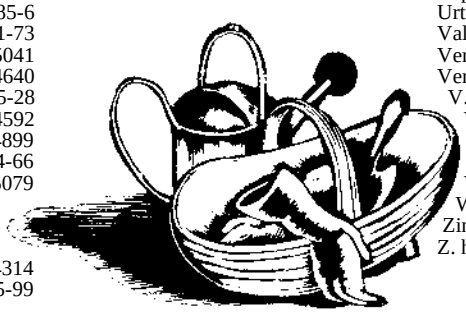
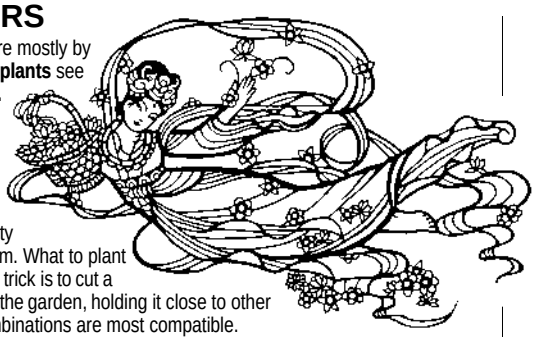


# FLOWERS



Flowers are arranged here mostly by common name. For **Dye plants** see **p. 111**. **See chart on pp. 90-91 for cultural information and common uses. A botanical index is on the left.** Days in parentheses after a variety indicate days to first bloom. What to plant next to what? A good old trick is to cut a flower and walk it around the garden, holding it close to other flowers to see which combinations are most compatible.

**Slow Flower Maine:** On June 23 *The Portland Press Herald* reported that the number of Maine farmers selling flowers has doubled in the past five years. While 80% of the flowers sold in the United States still come from abroad, Karen Volckhausen has helped spearhead a slow flower movement in Maine. Interested folks are invited to join at www.facebook.com/groups/613648248705562/

## ACHILLEA *Achillea* spp.

Perennial, Zones 3-10. Named for Achilles, who used it to stanch battle wounds. Common Yarrow is also called Soldier's Woundwort, Bloodwort, Nose Bleed and Sanguinary—all reflecting its styptic qualities, but we recommend **4699** White Yarrow for medicinal use. Likes full sun and good drainage. Avoid rich soils. Cutting back spent blossoms will encourage another bloom.

**4802CQ Cerise Queen** *A. millefolium* Also known as Pink Yarrow. Easy to grow and tolerant of drought, heat and poor soil. Beautiful cherry-red flat flower heads 2–4" across on 18" stems with lacy foliage. A good border plant. Feeds many beneficial insects. Needs light to germinate. Start indoors and transplant out. ~6,200 seeds/g. ✿ ③

**A**=0.1g, $1.40 **B**=0.5g, $3.80 **C**=3g, $14.00

**4803SP Summer Pastels** *A. millefolium* What's not to love about a yarrow? Easy to care for, long lived and long blooming, good in drought and now more beautiful, with a full range of soft pastel colors to light up any empty spaces in your sunny garden. This AAS winner covers the range from creamy yellow to gold, light to deep pinks, shades of lilac red and white. A fantastic way to support beneficial insects in your garden. 18-24". ~6,000 seeds/g. ✿ ③ **NEW!**

**A**=0.05g, $2.00 **B**=0.15g, $5.00 **C**=0.6g, $12.00

**4804PL The Pearl** *A. ptarmica* Bears clusters of fully double small white pompon blooms with tiny yellow centers, almost like a large double Baby's Breath. Its common name Sneezewort would lead one to believe that the flowers induce excessive sneezing. Actually it is less allergenic than common yarrow. Easily cultivated, spreads readily and makes an effective "wild" border, 2–3' tall. Supplies copious cutflowers from spring until frost, enjoyable either fresh or dried. Dry slowly before the oldest blooms start to brown. ~7,000 seeds/g. ③

**A**=0.05g, $1.40 **B**=0.15g, $3.80 **C**=0.6g, $6.00

**Acroclinium** *Helipterum roseum* Annual. Dropped for slow sales. *No longer available.*

## AGERATUM *A. houstonianum*

Annual. Its name means 'not growing old' as the flowers retain color for a long time. Also known as Flossflower. Covered with blossoms, great for summer borders.

**Culture:** Start indoors at 80˚ for 6–8 weeks before last frost; grow on at 60–65˚. Set 9–12" apart. Likes full sun. Water in hot weather. Extreme temperatures inhibit flowering. Will not tolerate frost. Cut for vase when flowers are first opening. **~7,000 seeds/g.**

**4811DB Dondo Blue** (40 days from transplanting) A cutting ageratum with long stems. Blooms held nicely through a rainy summer, all the way from July 20 to Oct. 5 killing frost. All seed is held over; 80% germ. ③

**A**=0.1g, $1.50 **B**=0.5g, $5.00 **C**=2g, $8.00

**Leda** Dropped for slow sales; *no longer available.*

**4817RS Red Sea** These long-stemmed magenta beauties make great cutflowers and attract bees and butterflies. Fleuroselect winner. 25". Pelleted seed sold by count. Supplier has discontinued and *this is the last year we will offer.* Heldover seed germinates at 80% and is in *short supply. Order early.* ~160s/g. ✿ ⑤

**A**=20 seeds, $1.40

**4819WB White Bouquet** (90 days) A white ageratum that doesn't get "dirty" after a few rains. Blooms from early July through early October. In addition to steadfast color, White Bouquet boasts nice long stems, excellent for cutting. 24". ②

**A**=0.01g, $2.30 **B**=0.05g, $7.00

**4821CS Carpet of Snow Alyssum** (60 days) *Lobularia maritima* Annual. Free-flowering ground cover, blossoming from late spring well into fall with a fragrance like fresh-mown hay. Cascading habit makes it excellent for windowboxes or terrace edges. 4" dwarf white. Formerly known as Little Gem, predates 1890. Widely recognized nectar source for beneficial insects. Start seed in cool place 6 weeds before setting out. Needs light to germinate. Transplant seedlings 4–8" apart. Easy to grow, likes sun, tolerates some shade. To extend their season, shear plants halfway back four weeks after bloom. Resistant to frost, will tolerate temperatures below 25˚. ~3,200 seeds/g. ✿ ②

**A**=0.5g, $1.20 **B**=7g, $2.80 **C**=28g, $5.60 **D**=84g, $12.00

## AMARANTH *Amaranthus* spp.

Annual. A dual-purpose crop, both nutritious and decorative. From the Greek *amarantos* for 'unfading.' Used as an ornamental, especially in harvest arrangements. Amaranth was an extremely important food of the Aztecs. **~1,250 seeds/g.**

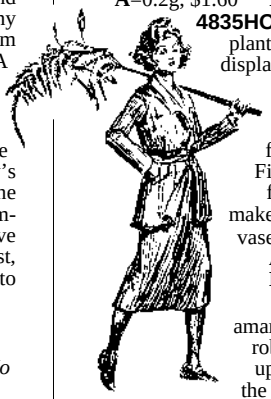
Also see page 70 for grain amaranth (**4300**).

**4831LL Love-Lies-Bleeding** *A. caudatus* (90 days) Also known as Tassel Flower. Well-loved by cottage gardeners for more than 300 years. This vigorous 2–4' branching annual sports long drooping red tassels that hold until frost. Makes a good border; stake and tie for neater appearance. Goes well with bachelor's buttons, nicotiana or sunflowers. Start indoors at 70–75˚, grow on at 62–65˚. Avoid heavy fertilization. Space at least 1' apart for strong stems. May be air-dried by hanging upside down; use heat for better color. ~1,500 seeds/g. ③

**A**=1g, $1.20 **B**=7g, $2.80 **C**=28g, $7.00

**4833CH Copperhead** *A. cruentus* (46 days) Flaunts glorious copper-colored seedheads atop its majestic 5' stalks at maturity. Wonderful decorative complement to the red amaranths, used as a garden backdrop or to give harvest arrangements a bright earthy autumnal color. Also an underused food plant both for its seeds and its young leaves, but the seeds may require too long to mature in our climate. ②

**A**=0.2g, $1.60 **B**=0.6g, $3.00 **C**=1.8g, $7.00 **D**=9g, $24.00

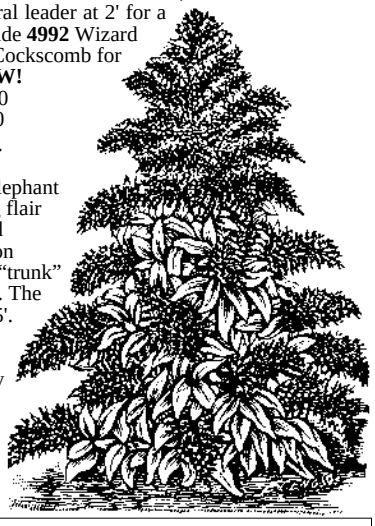


**4835HO Hopi Red Dye OG** *A. cruentus* (46 days) A stately 6' plant, Hopi was the best of the nine amaranths we compared, displaying 1–2' deep burgundy inflorescences. Leaves may be green or burgundy or some variation. Eat the young leaves in salads or slightly steamed, admire them young or old. The Hopis make a scarlet food dye from the flower bracts to color their ceremonial *piki* bread. Yanna Fishman of Union Mills, NC, suggests using Hopi in your floral arrangements. "When added to a flower bouquet it makes an ordinary clear jar look like an elegant purple-tinted vase as it colors the water." OT-certified. ①

**A**=1/16oz, $1.40 **B**=1/8oz, $2.60 **C**=1/2oz, $6.00
**D**=1oz, $10.00 **E**=4oz, $38.00

**4836CV Carnival** *A. gangeticus* (72 days) This gaudy amaranth fooled me early in the summer with its respectable robe of mahogany, green and bronze foliage swirled on an upright 3–4' central stalk. But at maturity, Carnival brings the party. Promiscuous whorls of hot pink foliage top every branch leader, transforming this matron into a diva, nearly 6' tall. Pinch back the central leader at 2' for a fuller, bushier habit. Grow alongside **4992** Wizard Coleus, and **4943** Coral Gardens Cockscomb for a psychedelic garden bash. ③ **NEW!**

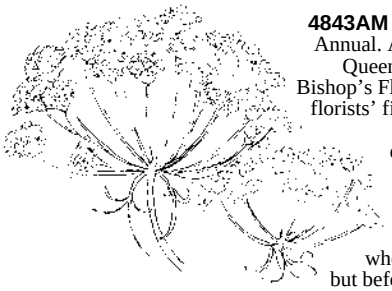
**A**=0.2g, $1.50 **B**=0.6g, $2.80
**C**=1.8g, $7.00 **D**=9g, $20.00



**4837EO Elephant Head OG** *A. gangeticus* (90 days) Tune out the politicians and elect this garden Elephant Head instead for its more amusing flair for the dramatic. The 110-year-old heirloom with deep reddish-maroon blooms develops a 6–12" vertical "trunk" atop a 12–18" base during August. The whole spectacular plant grows 3–5'. Seed from German immigrants saved by three generations of gardeners in Idaho, popularized by Seeds of Change. OT-certified. ①

**A**=0.1g, $1.50
**B**=0.3g, $2.80
**C**=1.2g, $7.00
**D**=6g, $20.00

**Supplier Codes** Know where your seed comes from! See page 5 for details.
① Small seed farmers including Fedco staff.
② Family-owned companies or cooperatives, domestic and foreign.
③ Domestic and foreign corporations not part of a larger conglomerate.
④ Multinationals not to our knowledge engaged in genetic engineering.
⑤ Multinationals who are engaged in genetic engineering.
⑥ Manufacturers of neonicotinoids: Bayer and Syngenta.



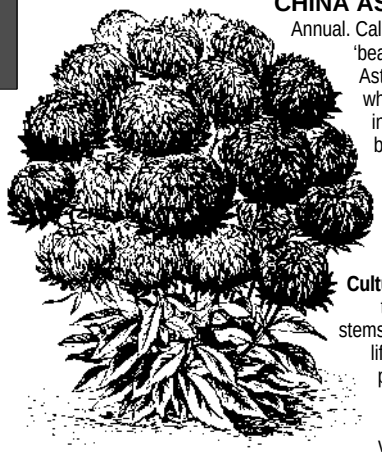
**4843AM Ammi Majus** *A. m.* (105 days) Annual. Also known as White Dill, False Queen Anne's Lace, Lace Flower and Bishop's Flower. Grows 3–4'. This popular florists' filler looks like an elegant cousin to Queen Anne's Lace. I was enchanted by its attractive green buds and intoxicated by its aroma. Flat white lacy flower heads 5–6" across lend an airiness to bouquets. Best cut when all the florets are nearly open but before they shed pollen, Ammi will last 5–7 days in the vase. Prechill seeds two weeks. Cover seed lightly. Needs fluctuating temperatures, 80˚ days and 50˚ at night. Do not apply bottom heat. Germinates 7–14 days. Space 9–12" apart. *Caution: some people get contact dermatitis from the sap in the presence of sunlight.* ~1,900 seeds/g. ②

**A**=0.5g, $1.10 **B**=2g, $2.80 **C**=20g, $5.50

**4849NH New Hybrids Aster** *Aster nova-belgii* Perennial, Zones 4-8. A good antidote when summer flowers fade and the late-season doldrums hit your garden. These hardy "New York" (the botanical name dates back to when the State of New York was known as 'New Belgium') perennial asters pick up right where the others leave off, blooming the first year in a range of colors from red to purple and bluish to white in sequence from August to November. Because this is a mix of various hybrids and each type, in turn, blooms for several weeks, it makes a continuous long-lived show of color on the 4' plants. ~1,700 seeds/g. ②

**A**=.05g, $1.50 **B**=0.2g, $3.20 **C**=1g, $7.00

## CHINA ASTER *Callistephus chinensis*



Annual. Callistephus is from Greek *kallos* meaning 'beautiful' and *stephos*, 'crown.' The China Aster began its journey west around 1730 when a Jesuit missionary noticed it growing in a field near Beijing. Wildly popular by 1883 when Burpee listed 19 different classes of them compared to two each of marigold and zinnia. Good as bedding plants or cutflowers. Range of color includes blues, purples, pinks and white.

**Culture:** Sow indoors at 70–72˚ in late winter, transplant after danger of frost. Cut stems when 2–4 flowers have opened. Vase life is 5–7 days, longer if you use a floral preservative. Aster Yellows is a serious disease problem. Use floating row covers to keep out leafhoppers, the vector. **~450 seeds/g.**

**4851CR Crego Mix** Bold ostrich-feather blooms hold well in wet or cold conditions. 2' plants with 4" flowers in violet, lavender, pink, rose and fuchsia. Maule in 1915 asserted that they "surpass in size and beauty any other aster we have ever seen." "Pleasing, stately, handsome and vigorous," concluded H.W. Buckbee in 1927. ②

**A**=0.5g, $1.10 **B**=4g, $2.80 **C**=16g, $5.00

**4854MM Matsumoto Mix** (100 days) A very classy cutflower that may be harvested by the individual stem or in its entirety. Flowers sport distinct yellow centers amidst a variety of shades including apricot, blue, pink, red, rose, salmon and white. 2" semi-double blooms are concentrated at the top of strong 2½' stems. ⑤

**A**=0.2g, $1.90 **B**=3g, $8.00 **C**=9g, $20.00

**4857PR Princess Mix** (110 days) 2–3" flowers on long wiry stems. The pompon blooms with deeply crested centers are richly colored in shades of purple, salmon, magenta, rose and lavender. Elegant cutflowers tend to be late bloomers. Unsurpassed in September. ③

**A**=0.25g, $1.20 **B**=2g, $2.80
**C**=8g, $6.50

**4861BB Single Alba Baby's Breath** *Gypsophila paniculata* Perennial, Zones 4-8. Lovely as a border plant in masses, bearing many tiny single white flowers. Great filler for bouquets. Useful as an everlasting if cut before fully opened. May be sown direct; do not cover. Likes well-drained soil. Grows to 3'. ~1,270 seeds/g. ③

**A**=0.7g, $1.30 **B**=7g, $3.50 **C**=21g, $7.00

"You make my transition to all ALL FLOWER production so easy with such a super duper collection of cut flowers."
–Marina Michahelles, Shoving Leopard Farm, Red Hook, NY

## BACHELOR'S BUTTON *Centaurea cyanus*

Annual. Named for the centaurs of Greek mythology. Easy to grow, great for cutflowers and beds. Common name may refer to the tight unopened buds' resemblance to buttons or to their popularity as boutonnieres. Also known as Cornflower and, formerly, Hurt-Sickle because its wiry stems dulled many a sickle during mowing time.

**Culture:** Start indoors at 60–65˚ 2 months before setting out, or direct seed in May in a sunny location. Deadhead for persistent blooms, or make a succession planting in mid-late June if you desire late-summer flowering. Will self-sow. Lasts longer than most flowers after frost. Gained top rating for drought resistance from Garden Centers of Colorado. Cut when flowers are just beginning to open—they'll open more in the vase and last 6–10 days. 3'. **~210 seeds/g.** *Cannot ship to Alaska.*

**4871BL Blue Boy** (90 days) Showy blue. ②

**A**=1g, $1.20 **B**=28g, $3.20
**C**=112g, $8.00 **D**=1lb, $21.00

**4873FR Frosty Mix** (96 days) Dark centers featuring maroons and purples fade into white outer petals, creating a frosted effect. Bloomed 4 weeks after a May 2 transplanting at Loon Song Farm. ③

**A**=1g, $1.20 **B**=7g, $3.20 **C**=28g, $8.00
**D**=112g, $18.00

**4875BG Black Gem** or **Garnet** (90 days) Ruffled dark maroon. Dates from Buist's 1942 catalog. Hard to find. ③

**A**=0.25g, $1.30 **B**=1g, $3.20 **C**=4g, $6.00
**D**=12g, $10.00

**4877RB Red Boy** (90 days) Deep red. Dates from 1942. ②

**A**=1g, $1.10 **B**=7g, $2.80 **C**=28g, $5.50
**D**=1lb, $25.00

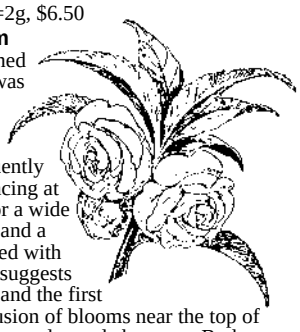
**4879BM Mix** (90 days) Showy blend of blue, pink, red, white flowers with blue predominating. ②③

**A**=1g, $1.10 **B**=28g, $2.80 **C**=112g, $6.00 **D**=1lb, $18.00

**4881BF Florist Blue Balloon Flower** *Platycodon grandiflorum* Perennial, Zones 3-8. Developed specifically for the cutflower trade, this 2½–3½' plant bears long-lasting deep blue rounded star-shaped flowers from June to August. Called Balloon Flower because the buds look like inflated balloons ready to burst. Slow to emerge in spring; needs some support once it does. Plant in sun to light shade, 12–18" apart. Taproot can make it tricky to transplant. Avoid wet soil where it will not thrive. ~1,100 seeds/g. ③

**A**=0.1g, $1.30 **B**=0.4g, $3.40 **C**=2g, $6.50

**4883CB Double Camellia Mix Balsam** *Impatiens balsamina* Annual. Balsam reigned supreme during the Victorian era when it was called Lady Slippers. Vick's in 1895 averred "no plant will give more in return for the care bestowed upon it and none is more frequently neglected," recommending spacing at least 1' apart, aiming for a wide diameter at the base and a pyramid shape covered with flowers. A different school suggests pinching off the side branches and the first flowers to encourage a profusion of blooms near the top of the plant and give the effect of a ready-made bouquet. Both agree that wide spacing is important to make the most of Balsam's novel show of abundant pink, rose and white rosettes along the axils up its stems**.** Direct seed after danger of frost. Don't cover the seed. 2'. ~120 seeds/g. ③



**A**=1g, $1.10 **B**=7g, $2.80 **C**=28g, $5.60

**4889NB Nonstop Tuberous Begonia** *B.* x *tuberhybrida* (140 days) F-1 hybrid. Perennial in Zone 10, grown as an annual. A boisterous mix of flamboyant color to awaken your garden. Nine shades, from pink to fiery red, apricot to golden orange, plus yellow and white, create a riot of color in a shady garden border or in hanging pots. Europe's #1 windowbox plant sports showy 3½–4½" fully double blooms on vigorous basal-branching stems. Begonias like shade, moisture, very rich soil, will tolerate a bit of sun. Start indoors, set out after all danger of frost. Needs 75˚ to germinate; takes 2–3 weeks. Pelleted seed. Packed by seed count, not weight. ②

**A**=10 seeds, $1.90 **B**=50 seeds, $6.00

**Blue Clips Bellflower** *Campanula carpatica* Perennial, Zones 4-10. Dropped for slow sales. *No longer available.*

**4896BI Bells of Ireland** *Moluccella laevis* (110 days) Annual, everlasting. Spikes of bright green bell-shaped "flowers" atop 2½' branching stems. Each green bell is really a showy inflated calyx with a tiny pinkish flower inside. When dried, bells turn creamy white. Likes partial shade; thrives in cool climates. Needs light to germinate. Will self sow. ~140 seeds/g. ②

**A**=1g, $1.10 **B**=3g, $2.80 **C**=15g, $5.50

**4899BS Blazing Stars** *Liatris spicata* Perennial, Zones 3-9. Also known as Gayfeather. 18" spikes of rosy purple flowers for cutflowers, also excellent for drying. Harvest the stems in the morning when at least half the flowers are open. Start indoors in late winter in a cool place and set out in spring in 6–8 weeks or direct seed in spring. Takes 3–4 weeks to germinate. ~330 seeds/g. ✿ ②
**A**=2g, $1.40 **B**=6g, $3.30 **C**=18g, $8.00

**4901BB Bouncing Bet** *Saponaria officinalis* Perennial, Zones 3-9. Also known as Soapwort. Customer feedback from this new listing bounced around almost as much as Bet. "Woo hoo for Bouncing Bet!" cheered Dereth Dubuc of Grafton, NH. "Bouncing Bet is called Bouncing Bet for a reason," countered Larry Siegel. "Planted at the turn of the century at our place, we're still trying to get rid of it." This charming sweetly scented pink perennial is often seen around old homesteads in Maine—a remnant from another time when its saponin-rich leaves and roots were used to clean delicate textiles, especially of grease. These days we appreciate soapwort more for the late-July colors of its dense clusters of 5-petaled flowers and their faint clove scent that attract pollinators. The 3' plant thrives in moist, partially shady areas but should not be planted next to ponds with amphibians or fish since saponins can be toxic. All seed is held over. ~600 seeds/g. ✿ ③
**A**=0.2g, $1.00 **B**=0.6g, $2.50 **C**=3g, $4.00 **D**=12g, $8.00

**4903BU Green Gold Bupleurum** *B. griffithii* (90 days) Annual. Though not well known outside of Dutch flower auctions where it commands a price similar to roses, this unique plant with yellowish flowers and round leaves gets attention from dried-flower growers. Its well-branched 2' stems air-dry perfectly, retaining their green color and looking like they had been dried in glycerine. Because each stem fans out, an individual stem provides backdrop for an entire arrangement, either fresh or dried. Start indoors early to reach full growth potential. Will self sow in warmer areas. ~320 seeds/g. ③
**A**=0.2g, $1.40 **B**=0.6g, $3.30 **C**=6g, $6.00 **D**=30g, $18.00

**4906BW Butterfly Weed** *Asclepias tuberosa* Perennial, Zones 4-9. Also called Pleurisy Root. Native to North America and widely adapted, this bright sun-lover provides a bold splash of bright orange from June until frost. Vigorous mounded 2x2' plants bear broad 5" heads of waxy flowers attractive to butterflies and bees. Leaves are a food source for monarch butterfly larvae. Both the flowers and pointed seedpods are useful for cutflower arrangements. Native Americans used roots to combat lung and throat troubles and to soothe wounds and sores. Germinates in 3 weeks at 70˚. Choose a permanent site with well-drained fertile sandy soil because its tuberous roots do not like to be disturbed. Direct sow in spring or fall, thinning to 18–24". Cut when at least half the flowers are open. Use caution when handling cut Butterfly Weed as sap can cause irritation. Exceptionally drought-tolerant. ~200 seeds/g. ✿ ②
**A**=0.5g, $1.40 **B**=2g, $3.50 **C**=6g, $6.50

## CALENDULA *C. officinalis*

Annual. Old kitchen garden flower, 18–20" tall, also known as Pot Marigold. Beautiful daisy-like flowers feed pollinators, are good for informal bouquets, and are also edible. Blossoms can be snipped from their stems, dried and added to soups, salads and stews. They are also used in homeopathic remedies and herbal tinctures and ointments for their antiseptic and soothing qualities.
**Culture:** Calendulas bloom over an extremely long period, thriving in cool weather and persisting through autumn's first frosts. Can be direct seeded in May or started indoors in cool place for early blooms. Readily self-sows. Don't crowd, give them full sun. Deadhead to keep blooms coming and the patch attractive, or try succession plantings.
**~150 seeds/g.**

**4911FO Flashback OG** (55 days) A mix of orange, apricot and peachy doubled petals, all with red backing to create a distinctive contrast. Colors fade to bicolor yellows or yellow-peach, adding interest as the plants mature. Blooms withstand light fall frosts; still look good in October. OT-certified. Ω ✿ ①
**A**=1g, $1.70 **B**=4g, $3.60 **C**=12g, $8.00 **D**=48g, $24.00

**4913KO Kablouna Mix OG** (60 days) Distinct refined form features striking crested blooms of gold, orange, lemon and apricot with a dark contrasting center. One of the loveliest of the calendulas. "Kablouna," our seed room goddess who looks after the good fortune of seed packers, was named for this cultivar. OT-certified. ✿ ①
**A**=1g, $1.20 **B**=4g, $3.00
**C**=12g, $6.00 **D**=1oz, $11.00

**4916MO Maya Orange OG** A calendula with a different look. Its brick-orange petals are layered like shingles around the dark brown center giving the illusion of double blossoms, though they really are not. Good cuts to enliven summer bouquets. Donna Dyrek's began blooming on July 14. Readily self-sows. AGRIOR-certified. ✿ ③
**A**=1g, $1.80 **B**=4g, $4.40
**C**=12g, $9.50 **D**=48g, $28.00

**4918OD Oopsy Daisy** Think Creamsicle! Orange- and yellow-tipped ivory-white petals slide down to golden centers. Singles and doubles abound on trustworthy cutflower-strength stems. Blooms open fully to 2" during the day, and plants reach a maximum height of 2'. Dainty foliage and dwarfed habit make this a treat for smaller spaces. A refreshing addition of white to our calendula collection. ✿ **NEW!** ⑤
**A**=1g, $1.80 **B**=4g, $4.40 **C**=12g, $10.00 **D**=48g, $30.00

**4920PB Pacific Beauty Mix** The classic lovely yellow and orange mix. Herbalists highly regard its healing gifts. ✿ ②
**A**=2g, $1.10 **B**=14g, $3.50 **C**=56g, $8.40 **D**=224g, $20.00

**4925RO Resina OG** (70 days) The best calendula for making tinctures and oils and the one Deb Soule grows at Avena Botanicals. Its medium-sized single blooms with small eyes are extremely resinous, coating your fingers or clippers while you harvest flowers. The medicinal sticky resins impart a pleasant odor. Blossoms are primarily bright yellow with yellow centers. A few will be orange with light orange centers. Cheery flowers, good medicine. OT-certified. ✿ ①
**A**=1g, $1.50 **B**=3g, $3.80 **C**=9g, $8.00 **D**=27g, $18.00

**4927LO Solar Flashback Mix OG** (55 days) A hot release from Frank Morton's calendula program. Morton describes it as "a distinctive new family of flash, selected to highlight contrast between bright light yellows, pinks, and solid red or maroon." Some feature yellow petals, some pinkish-blond, some yellow with light tips, all with contrasting red backs. Take a vacation from calendula orange. ☙2007. OT-certified. Ω ✿ ①
**A**=1g, $1.70 **B**=4g, $3.80 **C**=12g, $8.00 **D**=48g, $25.00

**4929ZO Zeolights OG** Pinky-maroon backing shows through the yellow petals to lend a pink tinge to the familiar calendula-yellow. Dark centers accentuate the color contrast. A Morton original. OT-certified. Ω ✿ ①
**A**=1g, $1.70 **B**=4g, $3.80 **C**=12g, $8.00 **D**=48g, $25.00

**4932CC Canary Creeper** *Tropaeolum peregrinum* Annual. A climbing relative of the nasturtium. Profuse 8' vines with unique deeply lobed frog-toe-like foliage and clusters of lacy-petaled golden-yellow flowers from midsummer till frost. Gorgeous when grown on a sturdy tripod with **5277** Kniola's Purple morning glories and/or **318** Scarlet Runner beans. Grows in shade but prefers full sun. ~15 seeds/g. ③
**A**=1g, $1.30 **B**=7g, $4.50
**C**=28g, $11.00 **D**=112g, $32.00

**4935FM Tall Candytuft Mix** *Iberis umbellata* Annual. A sweet antidote to monotonous candytuft: a mixture of vibrant colors from pink to dark purple with a few whites included for contrast. Bushy mounded plant grows 18–24" and is covered with abundant small scented flowers. Excellent for borders. Direct seed in late spring. *Candia*, an old name for Crete, and *Iberis* show its Mediterranean origins. ~420 seeds/g. ②
**A**=0.5g, $1.00 **B**=5g, $2.50
**C**=25g, $5.00

**4937PC Persian Catmint** *Nepeta mussinii* Perennial, Zones 4-8. While we can't duplicate the lavender fields of Provence, we can create a similar look by planting catmint. Its soft grey-green leaves clothe wiry 1' stems crowned with clusters of bluish-lavender tubular flowers. A member of the mint family, it grows rapidly in rich moist soils, but in sandy drier conditions can be contained. Plant early for blooms the first year. Thereafter will flower for 6 weeks from early spring to summer. Shear plants after blooming to encourage repeat blooms and to diminish self-sowing. Plant in full sun 2' apart. All heldover seed. ~1,200 seeds/g. ✿ ③
**A**=0.1g, $1.20 **B**=0.3g, $3.00
**C**=1.2g, $6.00 **D**=6g, $12.00

## CELOSIA *C. argentea*

Annual, good for fresh bouquets and everlasting arrangements. From the Greek *keleos*, 'blazing,' a reference to their brilliance. Commonly appear in three groups, *cristata* (crested, fancifully known as brains), *plumosa* (plumed) and *spicata* (with spikes or pointed). All share blazing colors, furry textures and unusual shapes. Known as *ji quan hua* in China where both seeds and flowers are used for blood diseases, bleeding and urinary tract infections.

**Culture:** From the Southern Hemisphere, at their best in hot dry weather. Should germinate within 10 days at 72–80˚.

**4943CG Coral Gardens Cockscomb** *C. a. cristata* An extra-dwarf brain-type growing fairly large flowers on compact 10" plants. Blooms display a rich mix of red, crimson, rose, orange and gold with an almost neon glow. *Includes some spectacular giant brain off-types of all colors.* Be prepared when people approach your annuals and ask, "Do you have any brains?" Sow indoors in peat pots 4 weeks before last frost. Too-early seeding and cold temperatures can cause premature flowering. Seedlings sensitive to both drying out and damping off; apply moisture evenly. Pinch off heads two weeks after transplanting to induce branching or leave one stalk for one larger bloom. Heldover seed germs at 80%. ~1,200 seeds/g. ③

**A**=0.5g, $1.20 **B**=3g, $2.80 **C**=15g, $7.00

**4948FF Forest Fire Cockscomb** *C. a. plumosa* Plume-type celosia also known as Feather Amaranth shows bright scarlet flowers, with strikingly beautiful bronze-red foliage. 30–36". Heldover seed tests at 82%. ~1,500 seeds/g. ③

**A**=0.2g, $1.10 **B**=3g, $2.80 **C**=12g, $5.50

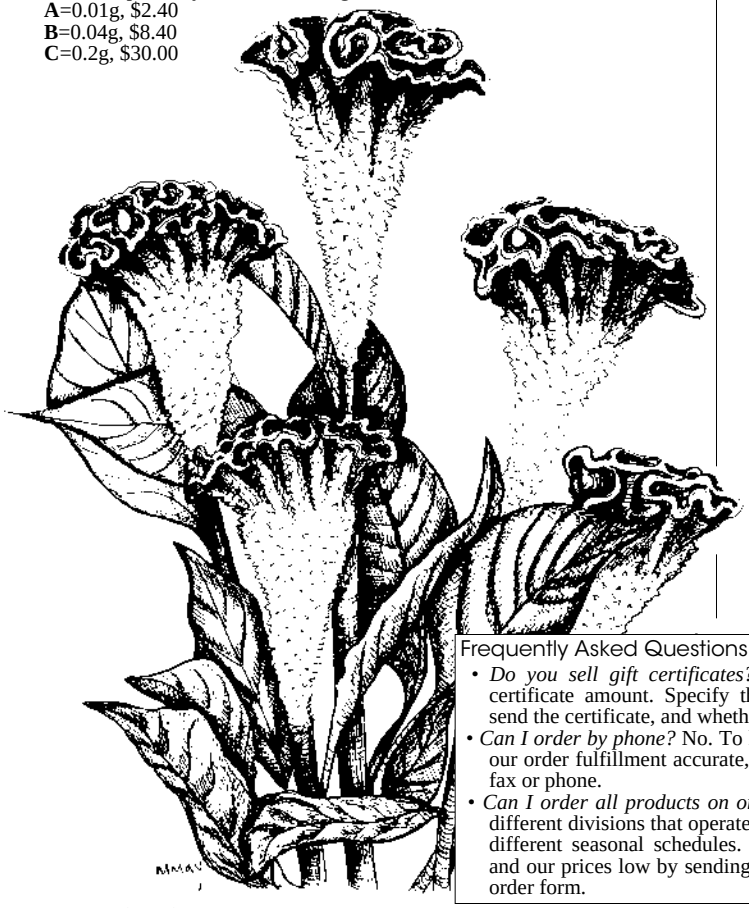
**Smart Look Red Cockscomb** *C. a. plumosa* Dropped for slow sales; *no longer available.*

**4956CR Cramer's Amazon** *C. a. spicata* (120 days) A truly wild thing from the Peruvian Amazon. Makes a great landscape plant, shooting a 3–6' spire punctuated by 2–3" reddish-purple spikes. Amazing long red stems and the spectacular spikes make this a perfect cutflower. Its coleus-colored leaves, green splashed with purple, heighten its dramatic effect. Blooms hold up better than other spicatas as a dried flower if cut while the spikes are still short. As the blossoms age they turn white on the bottom. Requires a long season. Start inside 8 weeks before frost and transplant into warm ground. Pinch at 12" to encourage branching. ~250 seeds/g. ①

**A**=0.2g, $2.20 **B**=1g, $6.50 **C**=4g, $17.00

**4959ST Startrek** *C. a. spicata scabra* "To boldly go where no seed has gone before." Each bloom is like a bouquet onto itself, quite unlike the single-spray wheat Celosia we formerly offered. The central plume surrounded by secondary blossoms creates the effect of a star-shaped cone. Bright plumes in an intense shade of rose top these 40–48" plants. Fleuroselect Quality Award winner and companion to the Enterprise Series. "Beam me up, Scotty." ~1,050 seeds/g. ⑤

**A**=0.01g, $2.40
**B**=0.04g, $8.40
**C**=0.2g, $30.00



**4962CE Kiwi Blue Cerinthe** *C. major* var. *purpurescens* Annual. Also known as European Honeywort or Wax Plant. Vigorous bushy annual 12–30" comes into focus when the cooler nights of late summer and early fall accentuate its colors. Coin-shaped grey-green foliage covers the sprawling stems. Profuse blue shrimp-like bracts bear terminal purple flowers shaped like comfrey blossoms. Tolerates heat, but likes cool weather and will withstand light fall frosts, looking best when others are fading. Good in a massed border. Direct seed or start indoors 6–8 weeks before setting out after danger of frost. Quick emerging and rugged. Rachel O'Meara of North Stratford, NH, observes, "Your notes say to start indoors, but I find it much better to direct seed—otherwise it is gone too soon." *This is the final year we will offer unless sales improve.* ~15 seeds/g. ⑤

**A**=0.6g, $1.60 **B**=2.4g, $5.00 **C**=7.2g, $12.00

**4965CY Firmament Chinese Forget-Me-Not** *Cynoglossom amabile* Annual. Also known as Hound's Tongue. Uniquely bright dainty 5-petaled azure-blue blossoms. Floriferous throughout the summer with three blooms per cluster and a half dozen clusters per plant. Try alongside calendula for color contrast. Introduced by Ernst Benary. 1939 AAS. Start indoors 6 weeks before the last frost or direct seed outdoors in spring. Germinates in 5–10 days at 65–70˚. Space plants 9" apart. Prefer full sun. 16–18". ~200 seeds/g. ②

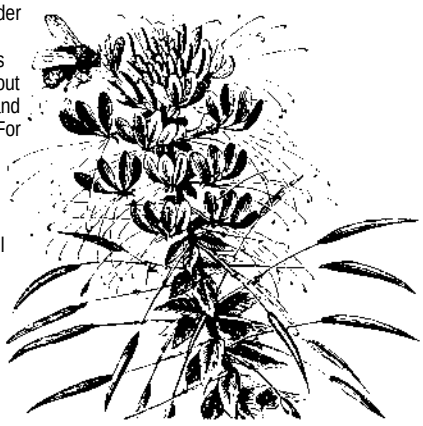
**A**=1g, $1.10 **B**=7g, $2.40 **C**=28g, $5.00

**4968CL Chinese Lantern** *Physalis alkekengi* Perennial, Zones 3-10. Grown for its deep orange "lanterns," the calyxes that surround the red fruits and hold their color when dried. *Physalis* is Greek for bladder, referring to these husks. May be sown indoors in warm place. Likes full sun. Dig out every three years to prevent invasion. All seed is held over. ~600 seeds/g. ③

**A**=1g, $1.40 **B**=3g, $3.30 **C**=9g, $8.00

## CLEOME *C. hassleriana*

Annual. The old-fashioned Spider Flower sets large open flower clusters with very long stamens atop 4' stalks. Blooms throughout the summer and likes the hot and dry conditions of midsummer. For better germination, prechill seeds in refrigerator. Do not cover seed. Likes alternating day (80˚) and night (70˚) temperatures to germinate. Will self-sow. **~450 seeds/g.**



**4982RQ Rose Queen** ③

**A**=0.5g, $1.30
**B**=7g, $3.80
**C**=28g, $10.00
**D**=112g, $38.00

**4985VQ Violet Queen**
Gorgeous in August. ③

**A**=0.5g, $1.30 **B**=2g, $3.80 **C**=8g, $6.00 **D**=32g, $12.50

**4988WQ White Queen** ③

**A**=0.5g, $1.30 **B**=2g, $3.80 **C**=10g, $6.00 **D**=50g, $16.00

**4992WI Wizard Coleus** *Solenostemon scutellarioides*, formerly *Coleus blumei* (45 days) Perennial in Zone 10, grown as an annual. Leaves are a resplendent kaleidoscope of colors: rose and ivory edged in green, deep velvet burgundy centered with flame, bronzed pink, scarlet…12 in all. The colors are strongest in deep shade, lighter in part shade. Germinate at 65˚. Do not cover. Do not overwater; subject to damping off. Easy to grow and maintain. Just pinch off any late-season flower stalks. Grows 10–12", great in window boxes and planters. Nikos brings her favorites indoors before frost and enjoys their magic all winter long. ~3,500 seeds/g. ⑤

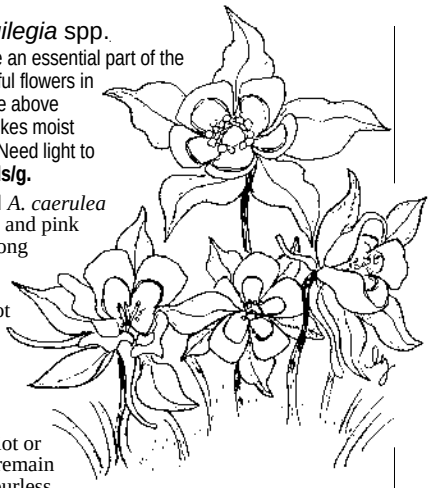
**A**=0.02g, $2.20 **B**=0.1g, $6.00

Frequently Asked Questions

- *Do you sell gift certificates?* Yes. Send a check for the certificate amount. Specify the recipient's name, where to send the certificate, and whether we should include a catalog.
- *Can I order by phone?* No. To keep our product costs low and our order fulfillment accurate, Fedco does not take orders by fax or phone.
- *Can I order all products on one order form?* No, Fedco has different divisions that operate out of different warehouses on different seasonal schedules. Help us keep our costs down and our prices low by sending orders on each division's own order form.

## COLUMBINE *Aquilegia* spp.

Perennial, Zones 3-10. Columbines are an essential part of the cottage garden or border. Their delightful flowers in mixed colors bloom in spring and dance above attractive lobed leaves. Easy to grow, likes moist well-drained soil, sun or partial shade. Need light to germinate; take 3–4 weeks. **~800 seeds/g.**



**4995SE Mrs. Scott Eliot Mixed** *A. caerulea* Free-blooming white, red, lavender and pink spurred flowers rising to 30" on strong stems. Prechill seed 3–4 weeks. Will bloom first season if seeds are sown indoors in early spring. Do not cover. Flowers May and June, attracts hummingbirds. ✿ ③

**A**=1g, $1.60 **B**=3g, $3.60 **C**=9g, $8.00

**4998EC European** *A. vulgaris* A better landscape plant than Mrs. Eliot or McKana Giants because its leaves remain green through the whole season. Spurless blossoms are mostly pink, with a few purples and whites. 2½'. ③

**A**=0.3g, $1.20 **B**=1.2g, $3.00 **C**=6g, $5.00

**5007YP Yellow Prairie Coneflower** *Ratibida columnifera* Perennial, Zones 3-9. One recent summer, I was enticed into a field by a yellow fluttering of dancing flowers on erect 1–3' slender stems. As I approached, I could see that the yellow petals merely skirted around a protruding cylindrical chocolate-brown center disk. The common name Mexican Hat evokes a tall sombrero and the lively and colorful Mexican Hat Dance. Prairie grasslands native likes full sun, blooms May through August, undaunted by drought. All seed is held over. ~1,830 seeds/g. ③

**A**=1g, $1.00 **B**=4g, $2.60 **C**=16g, $5.00

**Coneflower** Also see Echinacea, **4545-4547**, Rudbeckia, **5393-5399**.

**5012ES Early Sunrise Coreopsis** *C. grandiflora* Perennial, Zones 3-10. Won 1989 AAS for its ability to bloom weeks earlier than other Coreopsis. Dense well-branched 18" plants are loaded with 2" semi-double vivid golden-yellow blooms loved by syrphid flies, lady beetles, lacewings, parasitic wasps and many other beneficials. Start indoors 8–10 weeks before setting out in sunny spot, 12–18" apart. Do not cover seed. For cuts, harvest when flowers start to open. PVP. ~400 seeds/g. ✿ ⑤

**A**=0.1g, $1.70 **B**=0.3g, $3.60 **C**=0.9g, $7.50

## COSMOS *C. bipinnatus*

Annual. Sun-loving, free-flowering all summer, can serve as an accent, screen or cut-flower. Colorful daisy-style flowers with yellow centers bloom amidst lacy cut foliage. Attracts a broad range of beneficial insects.

**Culture:** For best results, thin its fast-growing large plants. Dead-head for persistent blooms. Harvest cutflowers when petals on first flower are just opening. Don't wait too long! Old blooms don't last. Vase life is 4–6 days. Light aids germination. May be started indoors at 70–75˚ (grow on at 60–65˚) or direct seeded after last frost. Space 9–12". Tolerant of drought. **~140 seeds/g**.

**5021CR Cranberries Double Click** My favorite color in this series, stunning dark maroon semi-double to fully double flowers have a lightly picoteed edge. Not the earliest to bloom but well worth the wait. Temporarily set back by excessive rains but makes a good recovery. Strong stems with attractive ferny foliage grow 2–3'. Truddi Greene of Chester, VT, calls it one of the new stars in her garden, "a spectacular deep red/pink…showy in the cutting garden and long-lasting in a vase." ⑤

**A**=0.2g, $1.90 **B**=0.6g, $3.80 **C**=3g, $14.00

**5023RB Rose Bonbon Double Click** Our latest addition from the fabulous Double Click family. Luxuriant fluffy semi-double to fully double rose-colored blooms. Absolutely spellbinding. All seed is held over with an 88% germ. ⑤

**A**=0.2g, $1.90 **B**=0.6g, $3.80 **C**=3g, $14.00

**5024DC Double Click Mix** (100-120 days) These double and semi-double award-winning flowers gain lots of attention with their unique puffy blooms in shades of pink, plum and white. With sturdy stems, excellent for cutting, and prolific bloom until frost, this superior mix makes garden visitors do a double take. 4' tall. ⑤

**A**=0.2g, $1.90 **B**=0.6g, $3.80 **C**=3g, $13.00 **D**=12g, $40.00

"Buried under three feet of snow and the Polar Vortex swirling, Fedco gives one hope."
–Jeanne Wright, Grand Marais, MN

**5027PI Picotee** (90 days) A unique bicolor cosmos. Flowers vary in hue from white to pink to rose, with each serrated petal edged in contrasting magenta. Plants grow 4' climaxed by blooms 2½–3" across. A beautiful addition to your cosmos bouquet. ✿ ③

**A**=0.5g, $1.10 **B**=3g, $2.80 **C**=15g, $6.20 **D**=1oz, $10.00

**5028PW Psyche White** Psyched for a pure-white cosmos with ruffled center petals plus thin rayed outer petals that create a fluted effect? Looked good even in wet humid 2013. Occasionally sets single flowers. Psyche White may be the same cultivar offered by Burpee as White Queen in 1923. ✿ ③

**A**=0.5g, $1.30 **B**=3g, $3.30 **C**=15g, $7.20 **D**=60g, $25.00

**5029SO Sea Shells OG** (100 days) If each petal on a Sensation were to curl into a tube, they'd have the striking delicate look of a Sea Shells. 3' plants come in the usual mix of pink, magenta and white shades. ✿ ③

**A**=0.5g, $1.20 **B**=3g, $3.30 **C**=12g, $6.40 **D**=1oz, $9.30

**Sensation Mix Cosmos** (85-90 days) So named because its early maturity created a sensation when it first came out in 1930. Won AAS 6 years later. These large-flowered cosmos, in pinks, roses, magentas and occasional whites, need little tending. Withstand the first mild frosts of fall. 4–5'. Our fourth most-popular flower.

**5035SM Sensation Mix** ②

**A**=1.4g, $1.10 **B**=14g, $2.80 **C**=56g, $7.20 **D**=1lb, $31.00

**5036NO Sensation Mix OG** CCOF-certified. ③

**A**=1g, $1.50 **B**=7g, $4.00 **C**=28g, $8.00 **D**=112g, $24.00

**5038BL Bright Lights Mix Cosmos** *C. sulphureus* A bright mix of 1½–2½" semi-double gold and orange flowers on 3–4' plants. Unlike the cosmos above, flowers form in loose clusters on lobe-leaved plants that are highly sensitive to frost. Tolerates dry soils. ②

**A**=1g, $1.40 **B**=7g, $3.50 **C**=28g, $8.00 **D**=112g, $22.00

**5039TG Tango Cosmos** *C. s. Ocho adelante* with this sulphureus. Luxuriant flame-red free-flowering double blossoms wane to bright orange with yellow centers on wiry 18" stems that float above the deeply lobed dark green foliage. Ideal for cutflower production. 4' tall plants span almost 4½' wide. Tango dodged a light September frost and continued its dance well into October, but *C. sulphureus* is sensitive to frost, unlike *bipinnatus* Cosmos above. ③ **NEW!**

**A**=0.5g, $1.40 **B**=3g, $3.00 **C**=15g, $7.00 **D**=60g, $18.00

**5041WD Wild Dagga** *Leonotis leonurus* Tender perennial, Zones 8-11, grown as an annual. No cowardly lion here. Also known as Lion's Ear, spectacular and exuberant with a series of orange tubular flowers clustered in collars along the stem. Showy vining shrub can grow 6' in a summer if started indoors in February. Surface sow; slow germinator needs light. Damaged by frost in the mid-20s and needs full sun to flower. Native to S. Africa where it is used for epilepsy, headache, hypertension, and stomach and bronchial problems. The resinous 5" leaves, rough on top and velvety underneath, are said to have a euphoriant affect. In East African legend, Dagga imparts the qualities of a lion. ~350 seeds/g. ③

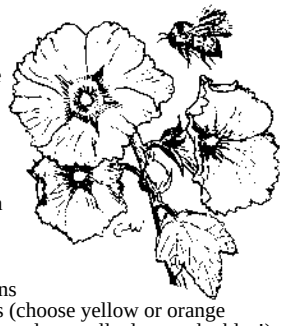
**A**=0.05g, $1.60 **B**=0.15g, $3.30 **C**=0.6g, $9.20

**5045HQ Harlequin Mix Dahlia** *D.* x *hybrida* Tender perennial, Zones 8-10, grown as an annual. If you like to dally 'mongst the dahlias, these bicolored buffoons are sure to cheer you. Semi-double 2½" blooms sit atop strong stems. Maroon-white and scarlet-yellow bicolors predominated in the trials but the mix also includes shades of orange, rose and violet. Early flowering 12–14" plants. ~125 seeds/g. ⑤

**A**=0.2g, $2.20 **B**=0.8g, $6.50 **C**=4g, $22.00

**Daisy** see Shasta Daisy, **5425-5428**.

Flowers & herbs to plant for the bees

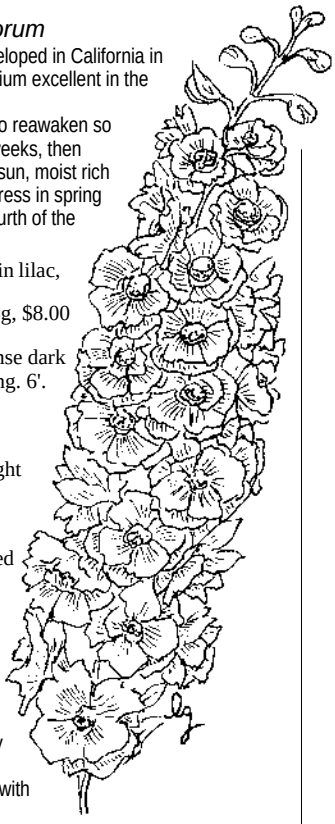


Bee Balm
Borage
Calendula
Columbine
Cosmos
Dianthus
Echinacea
Hollyhock
Lavender
Nasturtium
Poppies
Rudbekia
Salvia
Snapdragons
Sunflowers (choose yellow or orange varieties, and not pollenless or doubles!)
Sweet Peas
Purple Top Verbena
Beneficials Mix

## DELPHINIUM x *cultorum*

Perennial, Zones 3-7. The Pacific Giants were developed in California in the '40s. Magnificent dense racemes make delphinium excellent in the border and as a cutflower.

**Culture:** Old seed goes dormant and is very hard to reawaken so order fresh seed each year. Prechill seed for 2–4 weeks, then germinate at 65–75˚ and grow on at 50–60˚. Likes sun, moist rich soil, can tolerate some shade. Heavy feeder; sidedress in spring with well-composted manure. Harvest when one fourth of the flowers are open. **~450 seeds/g**.



**5052AD Astolat Pacific Giant** Pastel mix in lilac, raspberry and rose with dark bees. 6'. ③
**A**=0.2g, $1.50 **B**=0.6g, $3.60 **C**=1.8g, $8.00

**5054KN Black Knight Pacific Giant** Intense dark purple with black bees. Stately and breathtaking. 6'. ③
**A**=0.2g, $1.50 **B**=0.6g, $3.60
**C**=1.8g, $8.00

**5057SS Summer Skies Pacific Giant** Light azure, white bees. 6'. ③
**A**=0.2g, $1.50 **B**=0.6g, $3.60
**C**=1.8g, $8.00

**5059CY Connecticut Yankee Mix** Dwarfed version grows only 3'; good where wind is a problem. 1965 AAS in blue, purple, lavender and white. ③
**A**=0.25g, $1.60 **B**=1g, $5.50
**C**=3g, $12.50

## DIANTHUS spp.

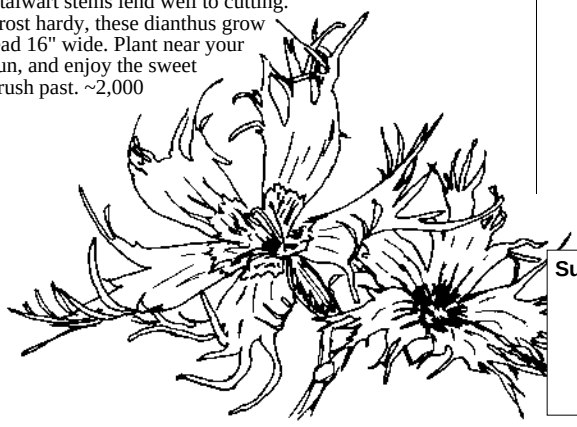
The name comes from the Greek meaning 'divine flowers.' Some are carnations; some are commonly known as Pinks, not for their color, but for their serrated petal tips which look like they've been cut with pinking shears.

**5061SW Double Choice Mix Sweet William** *D. barbatus* Biennial, Zones 4-10. A fragrant self-sowing biennial with familiar flat-topped flower clusters in red, pink, white, lavender or mixed colors. Germinates in 7–14 days at 70˚. May be started 2 months before setting outdoors, or direct seeded in late summer or fall. Requires full sun and good drainage; likes lime. 18". ~930 seeds/g. ②
**A**=0.5g, $1.00 **B**=7g, $2.50 **C**=28g, $6.00

**5063RG Reisen Giant Superb Mix** *D. caryophyllus* Perennial in Zones 8-10, grown as an annual. 20" plants produce fully double fringed carnations in an array of colors (red, violet, rose, white and bicolor) with corresponding differences in fragrance. The perfumed clove scent of the red is the most tantalizing, reminiscent of the exquisitely scented flowers that one reads about in old horticultural lore. ~500 seeds/g. ③
**A**=0.2g, $1.30 **B**=1g, $2.80 **C**=3g, $5.50

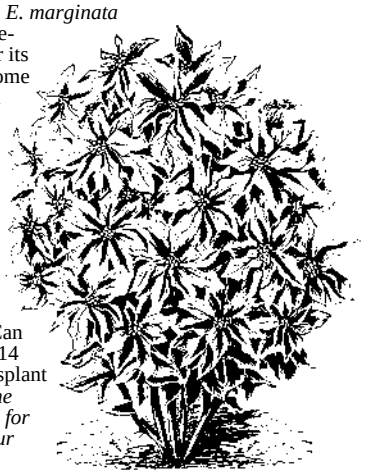
**5065RL Rainbow Loveliness Mix** *D.* x *hybrida* Annual. Rainbow Loveliness has fragrance—glorious, heavenly, sinfully delicious, intoxicating, jasminy—and good looks. "Swallowtails loved them," observed Jillian Forman of Young Sapling Farm, Rexville, NY. The lilac white, which we grew, sports deeply fringed white blooms with hints of pink at the tip and a greenish center eye, creating a wispy feathery effect. This mix of border pinks also includes strains of carmine, pink and bicolored 1½" blooms in loose clusters. Blooms late July from early June transplanting. 14". ~1,200 seeds/g. ✿ ⑤
**A**=0.02g, $2.00 **B**=0.1g, $6.00

**5066SP Superb Pink** *D. superbus* Perennial, Zones 3-8. I swooned over these feathery blooms, with their strong jasmine scent and deeply fringed single petals. Vibrant colors of deep red, white, magenta, purple and rose make the mix of 1½" star-shaped blossoms with prominent anthers. Each corolla sits upon an elongated peduncle like a miniature vase filled with perfumed petals. Stalwart stems lend well to cutting. Prolific and even frost hardy, these dianthus grow knee high and spread 16" wide. Plant near your walkways in full sun, and enjoy the sweet fragrance as you brush past. ~2,000 seeds/g. ③ **NEW!**
**A**=.05g, $1.30
**B**=0.2g, $3.00
**C**=1g, $5.00
**D**=4g, $12.00



**5067DI Lacy Blue Didiscus** *Trachymene coerulea* (95 days) Annual. Also known as Blue Lace Flower, introduced from Australia in 1828. Looks like a light blue version of Queen Anne's Lace. Airy flower heads on 2' stems floating like a blue mist above attractive finely cut foliage are excellent for cutting. Start indoors or direct seed after danger of frost. Transplant 8" apart. Likes full sun. ~360 seeds/g. ③
**A**=0.25g, $1.30 **B**=1g, $3.20 **C**=3g, $6.00 **D**=15g, $15.00

**5075KJ Kilimanjaro Euphorbia** *E. marginata*



Annual. Also known as Snow-on-the-Mountain. A foliage plant grown for its ovoid green leaves that quickly become outlined in striking white. Interplant with bright flowers for good contrast. Well adapted to poor or average soils; grew about 2' in my dry raised beds but capable of reaching a foot taller. Janine Welsby said it repelled rodents from her sweet potatoes. Long-lasting in a vase where it provides valuable filler with good color base. Will self-sow. Start indoors at 60–68˚, grow on at 60˚. Can be an erratic germinator, taking 10–14 days, sometimes much longer. Transplant out after danger of frost. *Caution: the milky sap may cause itching or rash for sensitive individuals. Do not rub your eyes after handling Euphorbia.* ~50 seeds/g. ⑤
**A**=0.3g, $1.20 **B**=0.9g, $2.80 **C**=4.5g, $7.00

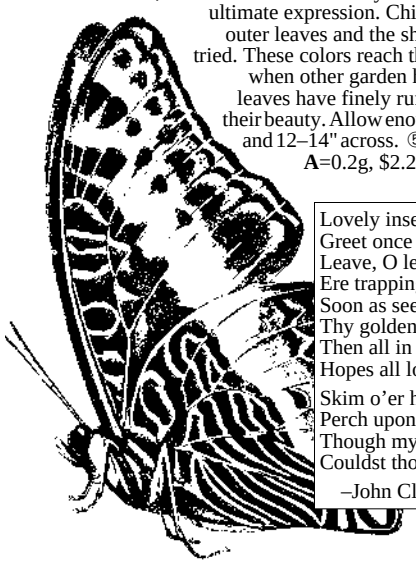
**5079BF Blue Flax** *Linum perenne* subsp. *lewisii* Perennial, Zones 4-9. Also known as Prairie Flax. Single light-blue flowers and finely cut foliage for borders or rock gardens. New flowers open every morning all summer, fade in afternoon heat. Likes full sun. Very drought tolerant. 9–12". Start indoors in a cool place 6–8 weeks before setting out or direct seed in cool soil in spring or fall. ~750 seeds/g. ②
**A**=0.25g, $1.10 **B**=1g, $2.50 **C**=4g, $5.50

## FLOWERING CABBAGE & KALE *Brassica oleracea*

Biennials grown as annuals. Sometimes used for garnishes or in salad mixes. Well adapted to cold climates, they are at their best when most flowers have given in to fall frosts. **~350 seeds/g**.

**5082FC Flowering Cabbage Mix** Good ornamental for our climate. The colors—green outer leaves and pink, white or purple centers—deepen at the onset of chilly autumnal nights. Start indoors 5–7 weeks before setting out in midsummer for fall maturity. While weather is still hot, sidedress with manure so that the plants will make rapid growth before nights begin cooling. As autumn approaches, withhold nitrogen to speed coloring. 10". ③
**A**=0.25g, $1.30 **B**=1g, $3.20 **C**=4g, $5.50

**5084RC Red Chidori** F-1 hybrid. Flowering kale is called *Ha-Botan* in Japan, meaning 'leafy peony.' The Japanese are world leaders in hybridizing these ornamentals, and in Red Chidori they have brought their work to its ultimate expression. Chidori had the brightest purple outer leaves and the sharpest red centers of any we tried. These colors reach their zenith shortly after frost when other garden hues are fading. Red Chidori leaves have finely ruffled edges that further accent their beauty. Allow enough space to grow 8–12" high and 12–14" across. ⑤
**A**=0.2g, $2.20 **B**=1g, $6.50



Lovely insect, haste away,
Greet once more the sunny day;
Leave, O leave the murky barn,
Ere trapping spiders thee discern;
Soon as seen, they will beset
Thy golden wings with filmy net,
Then all in vain to set thee free,
Hopes all lost for liberty.…

Skim o'er hill and valley free,
Perch upon the blossom'd tree;
Though my garden would be best,
Couldst thou but contented rest…

–John Clare, from "To the Butterfly"

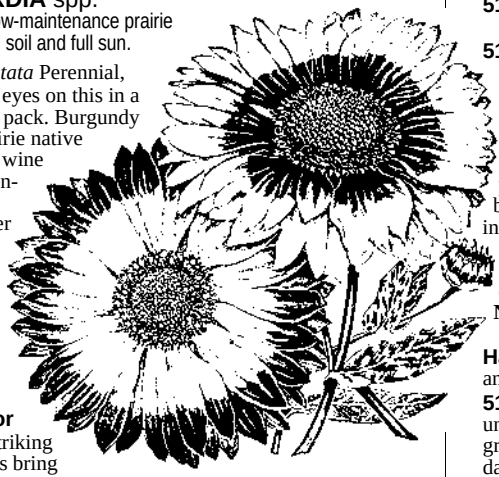
**Supplier Codes** Know where your seed comes from! See page 5 for details.
① Small seed farmers including Fedco staff.
② Family-owned companies or cooperatives, domestic and foreign.
③ Domestic and foreign corporations not part of a larger conglomerate.
④ Multinationals not to our knowledge engaged in genetic engineering.
⑤ Multinationals who are engaged in genetic engineering.
⑥ Manufacturers of neonicotinoids: Bayer and Syngenta.

**5091FN Forget-Me-Not** *Myosotis sylvatica* Perennial, Zones 3-9. The older I get, the more I want to be surrounded by plants that care for themselves. This little charmer, a biennial or short-lived perennial that self-seeds for many years, fits the bill. Excellent grown in a mixed border, where they peek out atop 6" stems with clusters of sky-blue color. They tolerate a wide range of conditions and grow in both sun and shade. Now if only I can *remember* not to weed them out the following spring. All seed is held over. ~1600 seeds/g. ②
**A**=0.1g, $1.10 **B**=0.5g, $2.80 **C**=3g, $5.50

**5095FC Tall Mix Four O'Clock** *Mirabilis jalapa* Annual. Also known as Marvel of Peru. The plant is anything but timid. Breck's in 1885 called it "a very desirable plant where there is plenty of room," and suggests each specimen should stand singly 3' apart. The fragrant trumpet-shaped flowers, in bright shades of cerise, burgundy, pink, yellow and white, open in late afternoon, reaching peak glowing loveliness at dusk. The 2–3' plants make good background or annual hedge. Start indoors, transplant out when warm weather has settled in. Likes full sun. Will self-sow in warmer areas. Drought-tolerant. ~17 seeds/g. ③
**A**=3g, $1.00 **B**=9g, $2.50 **C**=27g, $5.00 **D**=135g, $12.00

## GAILLARDIA spp.

Also known as Blanketflower. Low-maintenance prairie native likes light dry well-drained soil and full sun.



**5097BG Burgundy** *G. aristata* Perennial, Zones 4-10. When I first laid eyes on this in a nursery, it stood out from the pack. Burgundy has all the toughness of a prairie native enhanced with the solid deep wine color of a sophisticated garden-tour specimen. 3–4" daisy-like flowers bloom all summer on 2–3' plants. A favorite of butterflies and of gardeners who like to bring cutflowers inside. Plant 18–24" apart. ~280 seeds/g. ✿ ③
**A**=0.25g, $1.30
**B**=1g, $3.20
**C**=4g, $7.00

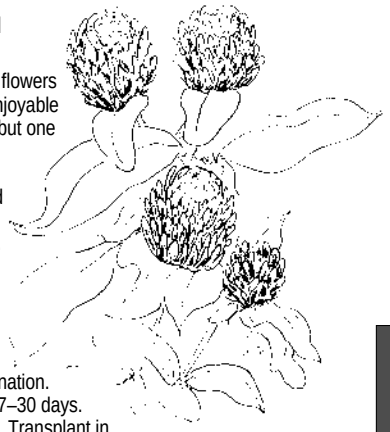
**5099SG Sundance Bicolor** *G. pulchella* Annual. These striking bicolor red and yellow blooms bring mahogany magic to your flower beds. The 12–15" plants spread a luxurious 16" and are covered with generous globe-shaped flowers. Sunloving plant has broad adaptation, very tolerant of heat and drought. Spread habit is ideal for hanging baskets and containers. Awarded both a Fleuroselect Gold Medal and a 2003 AAS citation. Sow indoors in spring and transplant out at 15" spacing. Likes alternating day (70-75˚) and night (60-65˚) temperatures to germinate. ~600 seeds/g. ✿ ③
**A**=0.25g, $1.70 **B**=1g, $4.00 **C**=4g, $10.00

**5100ND New Day Formula Mix Gazania** *Gazania rigens* Annual. Open-faced single blooms worship the sun in their daily salutations. Shades of bronze, orange, yellow, mauve, white and sepia all with yellow centers, and some with darkened petal bases, create a dynamic display. Its impressive drought tolerance shined last summer with a steady bloom performance beginning in early July and continuing through the nearly rainless August and September. These easy-to-grow short 8–10" plants with leathery dark green leaves keep tidy along sunny garden edges and are ideal for color in patio containers. Coated seed. ~175-225 seeds/g. ⑤ **NEW!**
**A**=0.1g, $1.80
**B**=0.5g, $5.20
**C**=2g, $18.00

"Thank you so much for shipping to Canada!"
–Tristan Cavers, Chase, BC

## GLOBE AMARANTH

*Gomphrena globosa*



Annual. Beautiful round clover-like 1" flowers on 2' stems perfect for drying. Also enjoyable as bedding plant. We've switched all but one color to the Las Vegas series (more compact plants with the same stem length) which was 15 days earlier and much more floriferous in our trials. Bloomed for Donna Dyrek on July 15. No gamble here.
**Culture:** Easily grown in any soil, likes hot sun, blooms prolifically. Tolerates dry weather and some frost. Chill seed 4–6 weeks at 40˚, then start indoors at 60–70˚ for best germination. Germination is erratic; can take from 7–30 days. Grow on at 55–60˚. Do not overwater. Transplant in 8–12 weeks, spacing at 12–18". **~200 seeds/g.**

**5102PG Las Vegas Purple** ②
**A**=0.1g, $1.80 **B**=0.4g, $5.20 **C**=1.2g, $13.00

**5104QG QIS Red** Vibrant strawberry-red profuse blooms. QIS stands for Quality In Seed. Enormously popular with commercial growers. ③
**A**=0.1g, $1.30 **B**=0.4g, $2.80 **C**=1.2g, $7.00

**5107WG Las Vegas White** ②
**A**=0.1g, $1.80 **B**=0.4g, $5.20 **C**=1.2g, $13.00

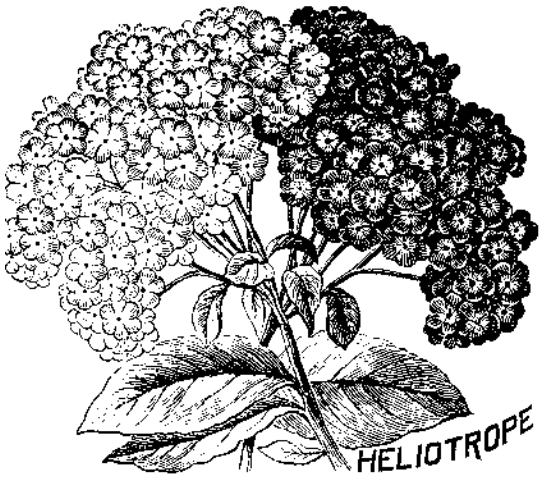
**5109MG Las Vegas Mix** Three vibrant colors: pink, purple and white. ②
**A**=0.1g, $1.80 **B**=0.4g, $5.20 **C**=1.2g, $13.00

**5112GB Goatsbeard** *Aruncus dioicus* Perennial, Zone 4-8. This workhorse extends the range and beauty of shade gardens. Eastern North America native looks much like a 6' tall astilbe, with cream colored plumes on bushy plants. Often called Bride's Feather because of its June bloom time, it continues and extends the blossom range of a shade garden into the summer—an eagerly sought attribute. The plants are either male or female, with the male flowers producing showier blooms than the female. Prefers full sun to part shade, and moist fertile soil. The 4–6' clumps are easy to maintain and fairly resistant to animal predation. ~9,000 seeds/g. ③ **NEW!**
**A**=0.1g, $1.60 **B**=0.3g, $4.20 **C**=1.5g, $9.00 **D**=6g, $20.00

**Hare's Tail** *Lagurus ovatus* Perennial grass, Zones 10-11, usually grown as an annual. Dropped for slow sales. *No longer available.*

**5113SS Sunburst Heliopsis** *H. scabra* Perennial, Zones 4-9. A most unusual heliopsis that sports variegated foliage featuring patterned bright green veins etched against a white background. Masses of bright yellow daisy-like flowers with darker centers stand above the foliage to complete its arresting display. Bushy plant grows slowly the first year to 15–18" but continues up to 4' in subsequent seasons. Donna's first bloom was July 12, 2012, from an Apr. 8 start. It was still flowering in October. ~230 seeds/g. ⑤
**A**=0.1g, $2.60 **B**=0.4g, $8.40 **C**=1.2g, $24.00

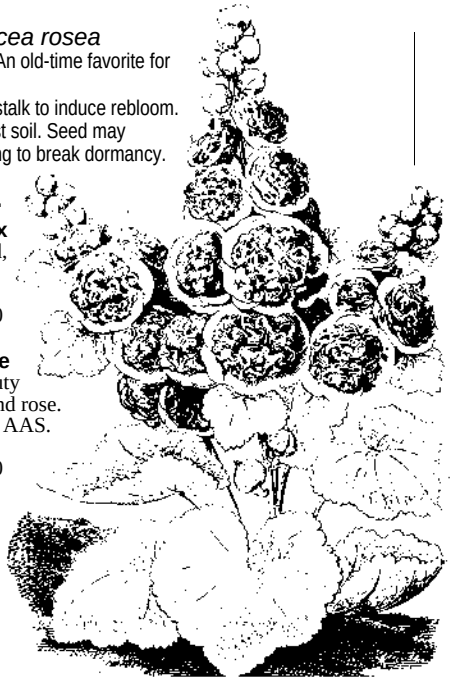
**5116MH Marine Heliotrope** *Heliotropium arborescens* (120 days) Tender perennial, Zone 9-10, grown as an annual. Native to Peru, an old-fashioned scented flower with a rich history. The aroma fills the garden on a cool damp day. Victorians edged their rose beds with heliotrope and it is still cultivated in Europe for perfumery. Smells like sweet violet, but deeper, and has been described as similar to vanilla, almond or cherry pie. Works well in hanging baskets, containers, the front of borders or any location where the scent will readily reach you. It may be transplanted indoors for the winter. 14–18" plants with deeply etched viburnum-like dark green leaves bear big flat clusters of tiny star-shaped royal blue flowers. Somewhat slow, erratic germinator, takes at least 2–3 weeks. ~1,500 seeds/g. ③
**A**=0.1g, $1.40 **B**=0.6g, $4.20 **C**=3g, $10.00



## HOLLYHOCK *Alcea rosea*

Biennial, Zones 3-8, often reseeds. An old-time favorite for background color.

**Culture:** Needs staking. Cut flower stalk to induce rebloom. Likes full sun, lots of room, and moist soil. Seed may require alternate freezing and thawing to break dormancy. Start indoors in a 70˚ spot 2 months prior to transplanting. **~105 seeds/g.**



**5122CD Chater's Double Mix** Double flowered in shades of red, pink, yellow and white. Dates back to the 1880s. 4–5'. ③
**A**=1g, $1.40 **B**=5g, $3.60 **C**=15g, $8.40

**5124SM Indian Spring Single Mix** Old-fashioned single 7' beauty in shades of red, yellow, white and rose. Favored by hummingbirds. 1939 AAS. All seed is held over. ✿ ③
**A**=0.25g, $1.20 **B**=1g, $2.80 **C**=3g, $5.50

**5127BH Black Hollyhock** *A. r.* var. *nigra* Heirloom with shimmering burgundy-black single flowers. Lasts 3–4 years in favorable conditions. Surface sow inside in April. Overly rich potting mixes will encourage damping off. May be the same black hollyhock grown by Thomas Jefferson at Monticello. ✿ ③
**A**=0.25g, $1.30 **B**=1g, $2.80 **C**=4g, $6.50

**5132HY Honesty** *Lunaria annua* Biennial, often grown as an annual, for everlasting arrangements. Also known as Silver Dollar, Moneyplant and Moonwort. Could be the solution to our national economic woes if only its silver seed pods were legal tender. In our catalog Honesty is a winter-hardy biennial with fragrant lavender flowers usually grown for its large coin-shaped seed pods that shimmer in winter bouquets. Sow indoors at 65–70˚, grow on at 60˚ at night before setting out to a sunny location, or direct sow spring or fall. Depending on conditions, may not flower until second year. 3'. As for an honest politician? Try VT Senator Bernie Sanders or MA Senator Elizabeth Warren. ~50 seeds/g. ②
**A**=1g, $1.10
**B**=14g, $3.30
**C**=42g, $6.50

"The idea of cutting back on politics writings would be akin to taking noodles out of mac and cheese."
–Anne Elder, Chelsea, MI

"Love your selections offered and quality products, but I am going to think long and hard before I shop with you again based on some of CR's comments."
–Caroline Levin

"More subversive commentary from Mr. Lawn please."
–Emanuel Pariser and Lea Girardin, Waterville, ME

## IMPATIENS *I. wallerana*

Perennial in Zone 10, grown as an annual. Impatiens is named for the way its seeds pop explosively out of their ripe pods. Freely branching 8–10" plants.

**Culture:** Thrives in shade and requires little care. Start indoors, need light so surface-sow, 70-80˚, takes 14 days to germinate, provide even moisture, do not overfeed, set out after danger of frost. Pinch blooms before they go to seed for best display. ~1,600 seeds/g.

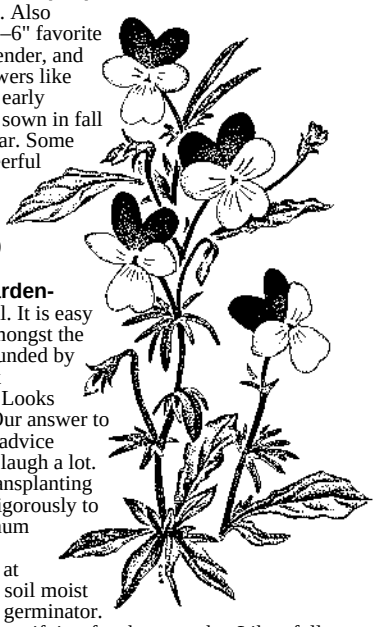
**5142SE Paradise Mix** *I. w.* F-1 hybrid. Bring a bit of tropical color into your garden with this new mix in the Super Elfin series. Lavender, fuchsia, violet and cantaloupe-colored flowers. Replaced Super Elfin Pastel Mix. ⑤
**A**=0.03g, $2.40 **B**=0.15g, $8.50

**5144JL Blue Pearl Jacob's Ladder** *Polemonium caeruleum* (90 days) Perennial, Zones 3-8. A staple of the shade garden in cooler climes. Where so few plants flower, Blue Pearl shines. Sky blue 1–1 1/2" cup-shaped blooms with distinctive gold stamens flower from late spring to early summer except in extreme heat. The long-lived compact 1' plants perform best in partially shaded borders, at the edge of woodlands or at the base of small shrubs or roses. Space 1' apart. Called Jacob's Ladder for the arrangement of parallel leaflets along the stem. Makes a beautiful cutflower. ~850 seeds/g. ③
**A**=0.1g, $1.30 **B**=0.5g, $3.30 **C**=2g, $5.50

**5147JO Job's Tears OG** *Coix lacryma-jobi* (100 days) Perennial in Zone 9-10, grown as an annual. Named for the Greek *coix* which means 'palm,' this ornamental grass's foliage resembles corn with blades up to 1 1/2" wide. Spiky 2–3' stalks good for planters or as filler in dried fall arrangements. Sets pendulous sprays of globular pearly purple-grey seeds, the tears, which may be strung as beads for necklaces. A great favorite of kids who love to harvest the seeds. Start indoors in late March or early April. Forgiving and easy to grow. Believed to be one of the oldest grasses in cultivation, featured in seed catalogs for almost two centuries. Our thanks to Alicia McDonald of Whately, MA, who sent us seed. MOFGA-certified. ~5 seeds/g. ①
**A**=2g, $1.30 **B**=6g, $3.30 **C**=24g, $9.50

**5150QM Joe Pye Weed** *Eupatorium purpureum* Perennial, Zones 4-9. Also known as Queen of the Meadow or Gravel Root. A "queenly" native: stately, tall and beautiful, with dense florets of dusty pinkish-purple flowers and foliage that releases the scent of vanilla when crushed. At 5–9' tall, makes an impressive background plant and a good cutflower. Medicinally, the root is used to treat chronic irritable bladder, urinary infections, kidney stones, menstrual cramps and prostate infections. Also stimulates circulation and reduces inflammation. Does best in moist well-drained areas, full sun or part shade. Surface sow in spring or fall; needs stratification unless sown in fall; takes 3 weeks to germinate; direct seed or transplant. ~2,809 seeds/g. ✿ ②
**A**=0.02g, $1.50 **B**=0.1g, $3.30 **C**=0.4g, $6.50

**5152HM Helen Mount Johnny-Jump-Up** *Viola tricolor* Perennial, Zones 3-9. Also known as Heartsease Pansy. This 4–6" favorite bears tricolor blooms in violet, lavender, and canary yellow. Small abundant flowers like partial shade. Can be direct seeded early spring for flowers late in season or sown in fall for earlier blooms the following year. Some call it invasive, others enjoy its cheerful spreading habit. Flowers make edible decorations with a faint wintergreen taste. ~900 seeds/g. ②
**A**=0.5g, $1.20 **B**=1.5g, $3.00 **C**=4.5g, $5.00

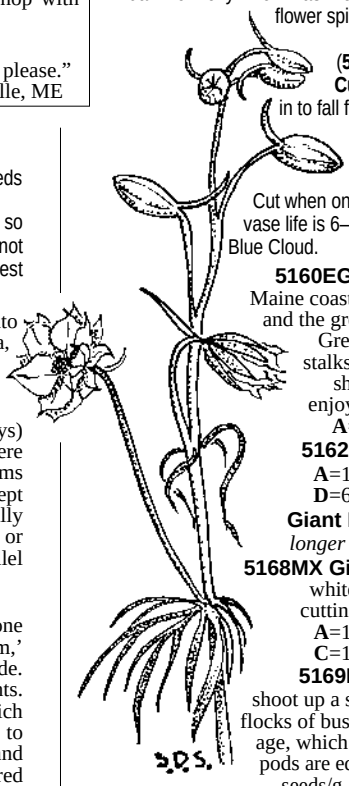


**5154KM Kiss-Me-over-the-Garden-Gate** *Polygonum orientale* Annual. It is easy to imagine an amorous meeting amongst the shelter of these 6–7' annuals, surrounded by large tassels of lightly scented pink blossoms and heart-shaped leaves! Looks like a beautiful giant Smartweed. Our answer to the customer who gave us the best advice we've ever received: "Breathe and laugh a lot. Kiss someone pretty." Although transplanting temporarily sets it back, it grows vigorously to take up a full square yard at maximum size. Blooms from July to frost, sometimes self-sows. Start indoors at 70–75˚, covering the seed, keeping soil moist till emergence. Fussy, slow, erratic germinator. Germination can be improved by stratifying for three weeks. Likes full sun or light shade. Native to China. Offered by Burpee in 1935 for 15¢ per packet as Ruby Gem. ~20 seeds/g. ①
**A**=1g, $1.50 **B**=3g, $3.30 **C**=12g, $7.80

## LARKSPUR *Consolida ajacis*

Annual. Formerly known as *Delphinium consolida.* Delphinium-like long-stemmed flower spikes are used as cutflowers or in dried arrangements. Upright 3–4' tall plants. The Giant Imperial series (**5162**-**5168**) features long racemes of double flowers.

**Culture:** Likes cool moist conditions. Very slow to give in to fall frosts. May be direct seeded in early spring or started indoors and grown on at 55˚ and set out in 8 weeks. Does not germinate well in warmer temperatures. Refrigerating for a week will improve germination. Cut when one third of the flowers on the stem are open. For cuts, vase life is 6–8 days. Excellent for drying. ~**330 seeds/g** except Blue Cloud.



**5160EG Earl Grey** For that kind of cloudy day on the Maine coast when subtle "cool" colors come into their own and the grey chill invites you to curl up with a cup of Earl Grey tea. This pearly grey-lavender larkspur on tall stalks fits nicely into such an atmosphere, its delicate shades revealing their shimmering clarity. Maybe enjoying them in a bouquet is your cup of tea. ③
**A**=0.1g, $1.40 **B**=0.5g, $3.30 **C**=3g, $6.60

**5162BS Giant Imperial Blue Spire** Dark blue. ③
**A**=1g, $1.30 **B**=4g, $3.30 **C**=16g, $7.00 **D**=64g, $24.00

**Giant Imperial Carmine** Dropped for slow sales; *no longer available.*

**5168MX Giant Imperial Mixed** Pinks, purples, blues and white make a beautiful background and are good for cutting. ③
**A**=1g, $1.10 **B**=4g, $2.80 **C**=16g, $5.00 **D**=4oz, $24.00

**5169BC Blue Cloud** *C. regalis* Blue Cloud doesn't shoot up a single spike like most larkspurs. Instead it sends flocks of bushy 5-petaled rich blue 1/2" florets on wispy foliage, which *en masse* give the effect of clouds. Its tiny seed pods are equally decorative. Will self-sow vigorously. ~800 seeds/g. ③
**A**=0.1g, $1.20 **B**=0.5g, $3.00
**C**=5g, $6.80 **D**=50g, $20.00

## LAVATERA *L. trimestris*

Annual. Also known as Herb Treemallow; botanical name honors the 16th-century Swiss naturalist brothers Lavater, and its three-month bloom time in warmer climes. **Culture:** Every stalk is covered with single funnel-shaped blossoms. Cut when flowers are unfurling or have just begun to bloom. Vase life is one week. Will survive light fall frosts. Start indoors at 70–72˚ 8 weeks before setting out, growing on at 65–70˚ days and 60˚ nights, or direct seed in sunny spot. Space 18–24". **~150 seeds/g.**

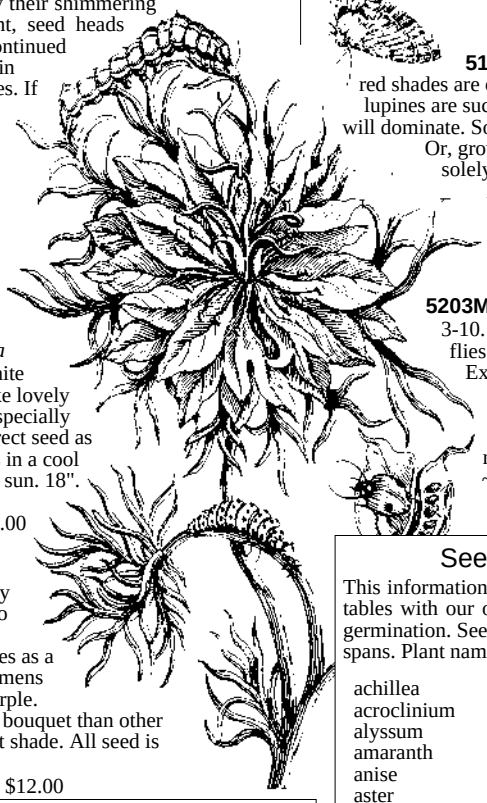
**5171LM Mix** More than 80% pink shades (some light and some dark) and the remainder white. An explosion of exotic blooms on 2' tall bushy plants great for borders. Lasts in bouquets after most others have shrivelled. ②
**A**=1g, $1.10 **B**=4g, $2.80 **C**=16g, $5.00 **D**=64g, $12.00

**5173TG Tanagra** Extra-large 4–5" deep rose flowers with lighter veining borne on robust 3' plants. All seed is held over. ③
**A**=1g, $1.20 **B**=4g, $3.00 **C**=12g, $6.00

**Lavender** See **4585** and **4586**.

**5180CP Crystal Palace Blue Lobelia** *L. erinus* Perennial in Zones 9-10, grown as an annual. Named for the Flemish botanist Mathias de l'Obel who was a physician to King James I of England. An old variety, offered by Henderson in 1902 for a dime per packet. With bronze-green foliage and a profusion of stunning deep blue flowers, this is the perfect window-box plant. 4" tall, great for edgings, walks and borders. Needs light to germinate. Tolerates some shade. Cannot stand frost. All seed is held over. ~30,000 seeds/g. ③⑤
**A**=0.2g, $1.50 **B**=1g, $3.30 **C**=4g, $6.00 **D**=28g, $28.00

**5182RS Ruby Silk Lovegrass** *Eragrostis tef* Tender perennial, Zones 10-11, grown as an annual. The romance is in the gracefully curving lines of this feathery grass with 18" stems bejeweled with sprays of iridescent burgundy seed heads. Nikos was entranced by their shimmering red display in the field. Early and persistent, seed heads began on July 10 from an April 11 start and continued into October. Although their luster fades a bit in dried arrangements, the burgundy color endures. If your love life has been a little lacking of late, maybe Ruby Silk is just the charm it needs. ~3,750 seeds/g. ②
**A**=0.1g, $1.50 **B**=0.5g, $3.60
**C**=2g, $8.00



## LOVE-IN-A-MIST *Nigella* spp.

Annual. Everlasting grown especially for its spiky decorative seed pods. Germinates 10–14 days at 60˚. Grow on at 60–65˚. Set transplants 6–9" apart.

**5184PJ Persian Jewels Mix** *N. damascena* (70 days) Profuse blooms in pink, blue and white shades surrounded by a cloud of greenery make lovely bouquets. Seed heads are used dried and are especially nice with a little bit of the flower attached. Direct seed as soon as ground can be worked, or sow indoors in a cool spot 2 months prior to setting out. Plant in full sun. 18". ~760 seeds/g. ③
**A**=0.4g, $1.00 **B**=2g, $2.80 **C**=14g, $5.00

**5187EX Exotic** *N. hispanica* Exotic's golden-brown pods are similar to velvetleaf's wonderful starry seed pods with a more spidery appearance that will add interest and volume to any dried arrangement. Unlike velvetleaf, this annual won't be a nuisance in the field. Doubles as a cutflower with open form, striking maroon stamens and an arresting shade of deep blue, almost purple. Atop 16" stems, the blossoms hold longer in a bouquet than other kinds of Love-in-a-Mist. Likes full sun or light shade. All seed is held over. ~900 seeds/g. ③
**A**=0.1g, $1.40 **B**=0.4g, $4.00 **C**=2g, $12.00

### Come Hither…

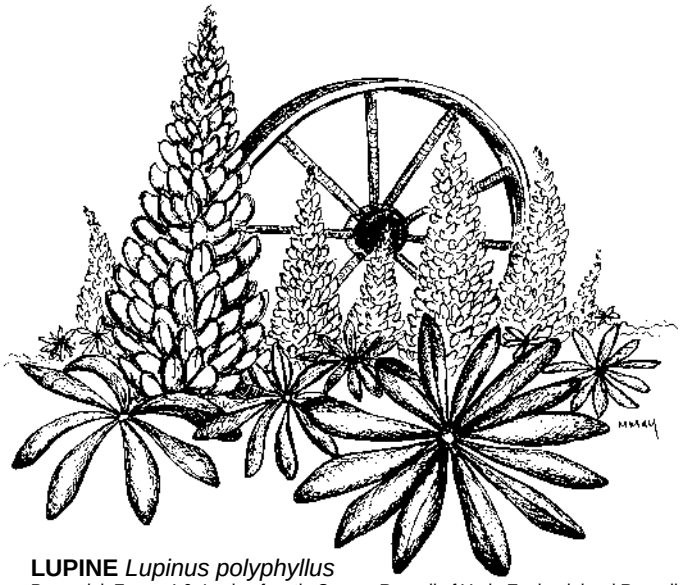
Different plants have different pollinators, and exhibit different traits to attract them.

– Scent. Bees like sweet, powerful scents; butterflies prefer fresh, delicate scents. And carrion flies and beetles flock to the foul-smelling blossoms of the Voodoo Lily, the Dead Horse Arum Lily, and Skunk Cabbage!

– Timing. Flowers pollinated by bats and moths emit stronger scents at night than during the day: for example, some species of stock, evening primrose, globe artichokes, honeysuckle, and Purple Top Verbena.

– Color. Bees cannot see the color red, but they do visit red flowers because they can see their ultraviolet patterns. However, they prefer blue, white, and purple flowers. Broad swaths of a single color signal a food-dense area and are more attractive to bees than scattered, spotty colors.

– Flower shape. Bees with long tongues (including some species of bumble bee), specialize in deep, tubular flowers that short-tongued honeybees can't access. The shape of the bee orchid, *Ophyrys apifera*, mimics a female bee, tempting the male bees to land on the flower in search of a mate.



## LUPINE *Lupinus polyphyllus*

Perennial, Zones 4-9. Lupine fanatic George Russell of York, England, bred Russell Hybrids Choice Mix, introduced it in 1937 and won the coveted Gold Medal from the Royal Horticultural Society. Dense spikes with large flowers in full range of colors.

**Culture:** Likes a cool moist spot in full sun, preferring sandy soil with ample room for their roots to spread. Can be sown indoors in late winter, or outdoors in early spring or late fall. 3'. *Seeds and seed pods are poisonous.* **~35 seeds/g**.

**5195MC My Castle Red Russell** In most lupine mixes the red shades are overshadowed by a preponderance of blues. The genetics of lupines are such that, as a patch crosses and self-sows, over time the blues will dominate. So now you can revitalize your patch with a new burst of red. Or, grown separately where they will not cross, you can maintain a solely red patch. ③
**A**=1g, $1.30 **B**=4g, $3.50 **C**=16g, $5.50

**5199RL Russell Hybrids Choice Mix** Mostly purple blooms with some bicolors in magenta, white and pink. ③
**A**=1.4g, $1.10 **B**=7g, $2.80 **C**=28g, $5.50

**5203MC Maltese Cross** *Lychnis chalcedonica* Perennial, Zones 3-10. Desirable 3' border plant attracts hummingbirds and butterflies by producing brilliant scarlet florets, each a five-part cross. Excellent for cutflowers. Makes a hot color combination with Rudbeckia and Coreopsis. Thomas Jefferson grew these at Monticello in 1807. Start indoors in early spring or midsummer for blooms next year. Do not cover seeds. Likes moist soil and full sun. All seed is held over, testing at 80%. ~2,000 seeds/g. ✿ ③
**A**=0.4g, $1.10 **B**=2g, $2.80 **C**=6g, $5.00

### Seed Longevity for Herbs and Flowers

This information was hard to find. We have integrated results from several tables with our own first-hand knowledge drawn from testing old lots for germination. Seeds stored in less than ideal conditions will have shorter life spans. Plant name is followed by years.

| | | | | | |
|---|---|---|---|---|---|
| achillea | 2 | dahlia | 2 | oregano | 2 |
| acroclinium | 3 | delphinium | 1 | pansy | 2 |
| alyssum | 3 | dianthus | 3 | penstemon | 2 |
| amaranth | 3-5 | didiscus | 3 | petunia (unpelleted) | 5 |
| anise | 3 | digitalis | 2 | phlox | 1 |
| aster | 1 | dill | 3 | poppy | 3 |
| baby's breath | 2 | fennel | 3 | portulaca | 3 |
| bachelor's button | 3 | four o'clock | 2 | rue | 2 |
| basil | 5+ | gaillardia | 2 | sage | 3 |
| borage | 5+ | hollyhock | 3 | salpiglossis | 3-5 |
| calendula | 3 | honesty | 2 | salvia | 1 |
| campanula | 3 | impatiens | 2 | savory | 3 |
| candytuft | 2 | larkspur | 1 | scabiosa | 3 |
| caraway | 3 | lavatera | 3-5 | snapdragon | 3 |
| catnip | 5 | lavender | 5 | statice | 2 |
| celosia | 3-5 | lemon balm | 5 | stock | 3 |
| chinese lantern | 1 | lobelia | 3 | strawflower | 2 |
| chives | 1 | lupine | 2 | sweet pea | 3 |
| chrysanthemum | 3 | marigold | 3 | sunflower | 3 |
| cilantro | 5+ | marjoram | 3 | thyme | 3 |
| clarkia | 2 | nasturtium | 3-5 | tithonia | 2 |
| columbine | 2 | nicotiana | 3 | zinnia | 3-5 |
| coreopsis | 2 | nigella | 1 | | |

## MARIGOLD *Tagetes* spp.

Annual. "We do not consider a flower garden complete without the good old-fashioned French and African marigolds." –Breck's, 1885. Good for bedding, for cuts, in planters or borders. Their warm colors cheer all summer long and positively blaze in the light of early autumn. Native to the Americas and said to have been sacred to the Aztecs. In 1939 Burpee's Red and Gold hybrid was the first hybrid flower from seed offered commercially in the United States.

**Culture:** Fast and easy to grow from seed. Sow after soil has warmed, or inside in a warm (75-80˚) spot, 3 weeks before setting out after danger of frost. Likes heat and full sun. Tolerant to drought. **~300 seeds/g** unless otherwise noted.

### African Marigold *T. erecta*

Tallest of the marigolds with largest leaves and flowers. Blooms are fully double and 3–4" across, resembling carnations. Plants make a bold highlight in large borders and crank out cuts.

**Crackerjack Mix** Early mix of orange, gold, yellow. Large fully doubled flowers on tall 30" plants that rarely need staking.

**5211CR Crackerjack Mix** ③
**A**=1g, $1.00 **B**=14g, $2.80 **C**=56g, $6.50

**5212CO Crackerjack Mix OG** ②
**A**=1g, $1.10 **B**=7g, $2.80 **C**=28g, $6.50 **D**=112g, $18.00

**5213FL First Lady** 1968 AAS, later voted the all-time favorite AAS flower. Lovely 20" border or hedge plant, covered with sunny yellow 3½" double flowers that keep coming till frost. ⑤
**A**=0.1g, $2.70 **B**=1g, $15.00

**5216NC Inca II Mix** Fitting sequel to the original Inca series, but stronger, earlier by 7–10 days, and more compact with a new primrose-yellow joining the original yellow, orange and gold. Produces enormous 4" fully double brilliantly colored blooms. Great for massed borders, these compact 12x14" plants allow you to pack them in. Remove spent flowers to promote new blossoms and maintain a clean look. Likes moist well-drained soil. Withstood the 2011 hurricane deluges with exceptional aplomb. ~400s/g. ⑤
**A**=0.1g, $2.70 **B**=0.3g, $7.00 **C**=1.2g, $20.00

**5219VA Vanilla** Formerly known as Sweet Cream and actually resembles sweet creamy farm milk—outstanding off-white color. Profuse large 3–4" double blooms on stocky 18" plants until frost. Use for cutting or keep deadheaded to maintain Vanilla's classy good looks. ⑤
**A**=0.05g, $2.70 **B**=0.2g, $7.00

### French Marigold *T. patula*

Small bushy plants with flowers approximately 2" across in a wide range of colors including yellows, oranges, rich reds, mahogany and bicolors. Bloom styles, depending on the cultivar, can be single, crested, semi-double or fully double. Outstanding edging plants bloom early summer till frost and stand well in all weather.

**5222BM Bambino** This darling's variegated petals of dark and light orange swirl around a center button, giving the effect of a tiny circus tent. Plentiful 2½" single-petaled flowers set early on semi-mounded 8" bush. Blooms strong until frost, championing orange in the garden till the pumpkins take over. ③ **NEW!**
**A**=0.5g, $1.50 **B**=2.5g, $4.00 **C**=15g, $10.00

**5224BR Brocade Mix** Abundant color on neat, compact 10" plants. Ruffled double flowers in rust, yellow, orange, red and bicolors. ③
**A**=1g, $1.10 **B**=7g, $2.80 **C**=28g, $5.50

**5229LD Lemondrop** A beautiful true yellow extra-dwarf crested variety. Blooms early, through summer into fall. 6–8". ~640 seeds/g. ③
**A**=0.7g, $1.20 **B**=3.5g, $3.50 **C**=14g, $11.00

**5231QS Queen Sophia** (60 days) Award-winning anemone-flowered dwarf. Each plant produces many bicolored double blooms. Flowers are deep rusty orange and, as they mature, petals are edged with gold. Named for Queen Sofia of Spain. 1979 AAS, later voted second most-popular AAS flower. 10–12". ③
**A**=0.7g, $1.50 **B**=3.5g, $5.00 **C**=14g, $12.00

**5235SP Sparky Mix** Combines yellow, gold, orange and red blooms on free-flowering compact 10–12" plants. Double flowers are 2–2½" wide with smoother petals than Brocade. Darold Decker introduction from the late '50s. ③
**A**=1g, $1.10 **B**=7g, $2.80 **C**=28g, $5.00

**5236TO Tashkent OG** (100 days) These pretty singles are very floriferous, especially as first frost approaches. Long blooming period begins early July. Each blossom has eight deep maroon-red petals with frilly edges and strong yellow centers. 12–14". Stellar NOP-certified. ① **BACK!**
**A**=1g, $1.70 **B**=3g, $4.20 **C**=9g, $9.00

### Signet Marigold *T. tenuifolia*

Also known as Gems, once known as Mexican marigolds, date back to 1798. Bloom prolifically with edible ¾" single flowers with yellow centers and a lemony fragrance. Compact mounded plants have finely cut ferny foliage. They don't need deadheading, but benefit from a light shearing in hot weather and from watering in dry spells. **~1000 seeds/g.**

**5243LG Lemon Gem** (68 days) Compact 10–12" plant bears tiny bright lemon-yellow flowers early, through summer, into fall. ③
**A**=0.5g, $1.50 **B**=1.5g, $3.80 **C**=6g, $8.50 **D**=24g, $19.00

**5246TG Tangerine Gem** (68 days) As above, but the tiny fragrant flowers are deep orange. They make colorful tasty additions to salads. ③
**A**=0.5g, $1.50 **B**=1.5g, $3.80 **C**=6g, $8.50 **D**=24g, $19.00

**5255MN Mignonette** *Reseda odorata* Annual. "Mignonette should not be forgotten, on account of its delicious odor." –Breck's, 1885. Once fashionable on the balconies of Paris, popular enough to command 7 listings in Burpee's 1935 catalog. May be regaining its lost cachet due to the revived interest in scent, for Mignonette is among the most fragrant. Its insignificant yellow-green blossoms send the enticing scent of raspberries wafting through the air. Less than a foot high, it can be grown in pots and moved for best effect; however, its scent will fade if it is removed from full-day sun. Direct seed; do not cover. Make succession plantings for continuous blooms. Prefers fertile well-drained soil and cool weather. Burpee claimed a light sandy soil brings out its most pronounced perfume. All heldover seed, tested at 76%. ~750 seeds/g. ③
**A**=1g, $1.10 **B**=4g, $2.80
**C**=16g, $6.50 **D**=64g, $12.00

**5257FX Foxtail Millet** *Setaria macrocheata* Annual. Its graceful 3–6" golden seed heads bobbing on an August breeze attract attention even before harvest. After harvest, Foxtail Millet makes a striking counterpoint in floral displays. Customers ask for this specific strain because its heads, covered with golden-russet hairs, are softer and look less seedy than other types. Plant in June, harvest mid to late August. All seed is held over; germs 88%. ~450 seeds/g. ③
**A**=1g, $1.20 **B**=4g, $3.00 **C**=28g, $6.50

**5259PM Purple Majesty Millet** *Pennisetum glaucum* (120 days) Annual. This 2003 AAS award-winning pearl millet accelerated the ornamental-grasses trend. Distinguished 3–5' tall background plant with deep-purple, almost black, corn-like foliage has purple seed spikes nearly a foot tall and an inch around. The immature plumes, looking like purple cattails, can be used in arrangements or left on the plant to attract birds. Tolerates hot dry weather, likes sun and can be cultured like sunflowers. Pamela and Frank Arnosky, in *Growing for Market*, reported that it was a sensational seller. However, they cautioned that some cuts left in their packing shed for a few days turned solid yellow with pollen that had an odor like burnt antifreeze. They advise cutting the spikes immature, just as they emerge from the last leaf, to circumvent the pollen. With all the hype, the seed is exorbitantly expensive. We've restricted our packet to about five seeds to keep our price within reason. ~116 seeds/g. ⑤
**A**=0.05g, $2.60 **B**=0.2g, $7.20 **C**=0.6g, $19.00

**Supplier Codes** Know where your seed comes from! See page 5 for details.
① Small seed farmers including Fedco staff.
② Family-owned companies or cooperatives, domestic and foreign.
③ Domestic and foreign corporations not part of a larger conglomerate.
④ Multinationals not to our knowledge engaged in genetic engineering.
⑤ Multinationals who are engaged in genetic engineering.
⑥ Manufacturers of neonicotinoids: Bayer and Syngenta.

## MORNING GLORY
*Ipomoea* spp.

Annual. Easily grown climber with trumpet-shaped flowers provides color and shade, decorates fence or post.

**Culture:** Plant with eastern exposure for best results. Nick the seeds with a file and soak overnight to speed germination. Germinates in 2 weeks at 75–80˚. Sow outdoors after danger of frost or indoors in peat pots as they resent transplanting. Overly rich soil will yield excess foliage and sparse blooms. **~25 seeds/g.**

**5271FS Flying Saucers** *I. nil* Seedsman Darold Decker created these gaudy 4" open trumpets just three years after the Russians sent Sputnick into orbit. Bicolor features clear white cups streaked with sky blue. The swirly blue patterns create the ethereal saucer effect that inspired its name. Can be brought inside in the bud stage for a week-long show as the amazing blossoms unfurl their patterns. Climbing vine grows 8–10'. ③
**A**=1.5g, $1.30 **B**=6g, $3.20 **C**=18g, $5.50 **D**=54g, $12.50

**5273SH Scarlett O'Hara** *I. n.* Very large wine-red flowers on 10' vines. Won 1939 AAS shortly after publication of *Gone with the Wind*. ②
**A**=3.5g, $1.20 **B**=14g, $3.20 **C**=56g, $10.00

**5274SS Sunrise Serenade** *I. n.* A recently rediscovered heirloom double morning glory. I first caught a glimpse of an unstaked plant snaking along in the undergrowth of a friend's garden and was arrested by the large 1–3" ruby-red blooms with white throats. As I bent closer, I was amazed by the frilly slightly wavy extra petals. A vigorous 12–15' plant, it needs to be tied up in order to climb. When thus displayed, the flowers contrast nicely with the heart-shaped green leaves. Often the first morning glory to bloom, also stays open longer than the singles. ⑤
**A**=0.3g, $1.70 **B**=1.2g, $5.80 **C**=6g, $14.00 **D**=24g, $50.00

**5276CM Carnevale de Venezia Striped Mix** *I. purpurea* vigorous 6' climbers quite striking with their masses of white flowers, some with blue stripes, some with pink, some with both in a wide array of diverse patterns. The effect is more cheery and naive than the full range of exotic masks and costumes displayed in the annual Carnival of Venice. More like a carnival pinwheel handpainted in the '60s. Plant them where they'll brighten up your morning. ③
**A**=1g, $1.30 **B**=3g, $3.30 **C**=15g, $10.00 **D**=90g, $35.00

**5277KO Kniola's Purple OG** *I. p.* (50 days) Beautiful glowing rich deep purple flowers vibrate against lush green foliage. Unlike most other morning glories, Kniola's starts blooming while it is only 2' tall and still vining. As the vines climb on to 8–9', the blooms continue, lasting the entire season. The deep flowers have a magenta star that radiates out from their pale pink-white throats. An heirloom discovered by Mr. Kniola at an abandoned farm in Indiana. Nicholas Lindholm acquired seed from J.L. Hudson in 1993, thence passed it on to Roberta Bailey who has been maintaining it and culling out the magenta off-types. All seed is held over. MOFGA-certified. ①
**A**=0.25g, $2.60 **B**=1g, $8.00

**5279HB Clarke's Heavenly Blue** *I. tricolor* (115 days) Classic morning glorly. Intense azure blooms lighten toward center; a sun-loving vine. 12'. ②
**A**=3.5g, $1.10 **B**=14g, $3.00 **C**=56g, $7.00 **D**=1lb, $29.00

"Will spring ever arrive? Ordering seeds is an act of faith."
–Laura Reiner, Great Red Acre Farm, Stow, MA

## NASTURTIUM *Tropaeolum* spp.

Annual. The name literally means 'twisted nose,' from the Latin *nasus* for nose and *tortus* for twist. Edible flowers with spicy sweet fragrance lend a peppery-sweet taste to salads, with each color adding contrast and subtle variations in flavor. Round leaves also edible. Formerly used as a remedy against scurvy.

**Culture:** Blooms keep coming if cut, needs moisture and cool temperatures for optimal blooming. Intolerant of frost. Germinates 7–10 days at 65˚. Cover the seed. Avoid excess nitrogen, but don't relegate nasties to the worst soil. Likes full sun. Start indoors or direct seed after last frost. **~6 seeds/g.**

**5280AL Alaska Mix** *T. majus* (60 days) Striking variegated green and white foliage will make a formidable bush if you feed it heavily. But go easy on the nitrogen if you want to eat lots of its tangy yellow and orange blossoms. A great plant for hanging baskets. 16". ②
**A**=2g, $1.10 **B**=8g, $3.00 **C**=24g, $6.00 **D**=1lb, $33.00

**5282EI Empress of India** *T. majus* (60 days) Hailed as a "great novelty" when introduced in 1884, and still popular today. Dark purplish-green leaves and stems make a perfect background for the spicy-hot brilliant crimson-scarlet flowers that stand out in bold relief. A good contrast with other nasturtium varieties. Do not feed heavily. 16" plants. ③
**A**=3g, $1.20
**B**=9g, $3.20
**C**=27g, $7.50
**D**=1lb, $42.00

**Jewel Mix** *T. majus* (42 days) Bushy variety holds its blooms above the foliage. Early free-flowering blend of orange, yellow, red, and gold. Long our best-selling flower variety. 16".

**5288JM Jewel Mix** ②
**A**=4g, $1.20 **B**=16g, $3.20 **C**=64g, $10.00 **D**=1lb, $32.00

**5289JO Jewel Mix OG** CCOF-certified. ③
**A**=4g, $1.70 **B**=16g, $5.50 **C**=64g, $18.00 **D**=1lb, $76.00

**5291TC Tall Climbing Mix** *T. majus* (65 days) Tall trailing mix to 4–6' in red, orange, gold and exquisite bicolor shades. The red blossoms have a spicier taste than those of lighter colors. Plants will spread and fill in a huge space but having no tendrils cannot, strictly speaking, climb. The most prolific blossom set of any of the nasturtiums we have tried. ②
**A**=4g, $1.20 **B**=28g, $3.20 **C**=84g, $7.00 **D**=1lb, $27.00

**5293PM Peach Melba** *T. minus* (60 days) Named for the dessert—peaches with raspberry sauce—Escoffier created to honor 19th-century operatic soprano Nellie Melba. Recommended by Eva Sommaripa and other growers who treasure its unique delicacy. Primrose-cream blossoms with pearly red centers look like miniature cut peaches with dollops of sauce. Sets its abundant blooms above the compact lily-pad foliage. Seed is expensive but worth it. ③
**A**=1g, $1.60 **B**=4g, $4.40 **C**=16g, $12.00 **D**=64g, $30.00

**5295WB Whirlybird 7-Color Blend** *T. minus* (60 days) Has large spurless upward-facing flowers borne above the foliage. Compact non-trailing plant habit. Recommended for commercial growers. 12" plants. All seed is held over at 80% germination. ③
**A**=2g, $1.20 **B**=6g, $3.20 **C**=24g, $7.00 **D**=1lb, $45.00

**5300LN Only the Lonely Nicotiana** *N. sylvestris* Annual. Arrived in cultivation from Argentina in 1899 and offered by Geo. B. Haskell Co. of Lewiston, ME, for a nickel per packet in 1904. Also known as Woodland Tobacco, featuring clusters of drooping tubular white blossoms that perfume the garden day and night. In dwarfing nicotiana, breeders took away its fabulous fragrance. Lonely, a stately 5', delivers the full powerful scent its more compact cousins lack. Plant it near a door or under your bedroom window where you can enjoy the aroma during the night. Germination is 10–12 days at 65–70˚. Light enhances germination. Grow on at 50–55˚. ~29,000 seeds/g. ①③
**A**=1g, $1.40 **B**=4g, $4.50 **C**=16g, $16.00

**5303RM Royale Mix Painted Tongue** *Salpiglossis sinuata* Annual from the Andes noted for its exquisite velvety texture. Popular as a cutting flower in Victorian times, it was often planted in geometric patterns in an art form known as mosaiculture. Extremely floriferous 15–20" plants produce masses of elegant 3" trumpet flowers in a broad range of colors from chocolate, red, purple and yellow to purple-orange and pale blue bicolors. Germinates in 15 days at 70˚. Likes long days, lots of light and cool nighttime temperatures (50˚) to grow on. Set out in a location with partial shade, good drainage and protection from the wind. Deadheading prolongs blooms. ~4,500 seeds/g. ④
**A**=0.01g, $2.20 **B**=0.05g, $6.30

## PANSY *Viola* spp.

Annual or short-lived perennial. Burpee's in 1888 called the pansy "the most popular of all flowers grown from seed," and sold more than 100,000 packets per year. James Vick's Sons sold 27 different kinds and mixtures in 1895. For thoughts, remembrance, from the French *pensée.*

**Culture:** Old-fashioned bedding plant thrives in cool moist conditions. Start 2 months prior to planting in a cool (60–65˚) place. Cover seed to germinate. Takes about 12 days. Grow on in very cool temperatures—preferably below 50˚. Likes partial sun. **~700 seeds/g** except where noted.

See **5152** for Johnny-Jump-Up.

**5304BG Blueberry Glow** *V. cornuta* 10–12" with 1" flowers. Deep purple face with a yellow eye spreads into a golden-amber chin and blue-violet bonnet. Backlit by the setting sun, this pansy truly glows. Still growing strong for Donna Dyrek after two winters and blooming exuberantly on Oct. 2. ④

**A**=0.02g, $2.10 **B**=0.1g, $5.50 **C**=0.4g, $13.00

**5305BS Brush Strokes** *V. c.* As if an artist had taken a fine brush to lay delicate bright stripes on its palette of solid colors. Purple, pink, yellow and light blue striped with white and yellow strokes. Donna's blossomed the first of July from an April 8 start and are among the first to revive in the spring. Dwarf 6" plants with large fragrant faces. ~1,100 seeds/g. ⑤

**A**=0.02g, $2.10 **B**=0.1g, $5.50 **C**=0.4g, $13.00

**5307JJ Jolly Joker** *V.* x *wittrockiana* 1990 All-America winner. Does not display the familiar flat "face" we've come to expect on our pansies. Instead its vibrant color combination of orange and purple will make you take notice. One of the hardiest pansies, as well as one of the slowest to "stretch." 8". ②

**A**=0.1g, $2.10 **B**=0.5g, $6.00

**5314PE Pearly Everlasting** *Anaphalis margaritacea* Perennial, Zones 3-8. You may have seen these blooming from midsummer to fall in the full sun or partial shade along the edge of a field. Big clusters of 1/2" white papery flowers on 18–24" plants live up to their name and hold their pure white color without turning brown when dried. Best picked for drying before the yellow centers are visible in order to prevent an unattractive exploded look. Also use fresh in bouquets or leave outdoors to attract pollinators. Good for naturalizing in evenly moist soil but will tolerate drought. Known by the Passamaquoddy as "women's tobacco" because it is milder than Red Willow, and used for calming the mind, for headache and insomnia, and as a smudge or offering. Direct sow after last frost so that plants are 18–24" apart. ~8,000 seeds/g. ✿ ③

**A**=0.1g, $1.60 **B**=0.3g, $3.80 **C**=1.2g, $12.00

## PETUNIA *P.* x *hybrida*

Annual. "If I were limited to one flower with which to decorate my home I would choose Petunias." –Park's Flower Book, 1934.

**Culture:** Start indoors at 70–75˚ and grow on at same temperature for 8 weeks before setting out after danger of frost. Do not cover seeds; light aids germination. Use loose medium and avoid overwatering. Drought-tolerant sun lovers. All F-1 hybrids. **~10,000 seeds/g.**

**5321DD Daddy Mix** "Who's your daddy?" It's a hybrid, so we don't know. Very showy grandiflora has big 4" ruffled blooms in shades of light blue, orchid, peppermint, pink, plum and strawberry with darker veins. Stunning in baskets, these uniform plants also exhibit good weather-tolerance when planted in full sun. 12–15". ⑤

**A**=0.03g, $3.30 **B**=0.12g, $12.50

### Wave Series Petunia

Our customers have caught The Wave. Each plant carpets the ground with a 4x4' spread of vivid color. This versatile landscaping tool can be used as a low hedge, as a ground cover, or trailing from pots. Wave showed extreme drought tolerance in our trial, sailed through light frost, and bounced back after torrential rain. Although never deadheaded or cut back, the 3" flowers just kept coming and coming.

**Culture:** Plant in full sun where its robust performance and light fragrance can sweep you away. All varieties pelleted seed, packed by count and shipped in protective vials so none get crushed.

**5323BW Blue Wave** Suggested by Nan King of Walpole, NH. She prefers Blue Wave's plant habit to that of Purple, finding it less rangy, more floriferous, and the foliage better at covering the underpinnings. Has bluish-purple flowers and mounding appearance that spreads large. 2003 AAS. ⑤

**A**=10 seeds, $2.50 **B**=40 seeds, $9.20

**5325PW Pink Wave** Pink, with white throats. ⑤

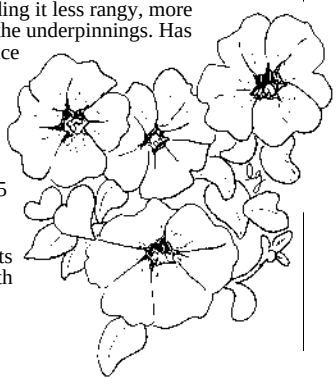
**A**=10 seeds, $2.50 **B**=40 seeds, $9.20

**5326PU Purple Wave** Vivid fuchsia. 1995 AAS. ⑤

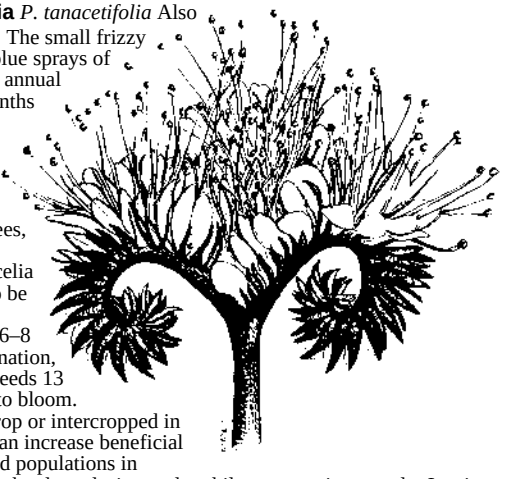
**A**=10 seeds, $2.50 **B**=40 seeds, $9.20

**5328TW Tidal Wave Silver** Despite its name, more a very pale purple than silver, with darker purple veining. 2002 AAS. ⑤

**A**=10 seeds, $2.50 **B**=40 seeds, $9.20



**5331PH Phacelia** *P. tanacetifolia* Also called Fiddleneck. The small frizzy curling lavender-blue sprays of this bushy 18–30" annual bloom for two months and provide high-quality pollen and nectar, making it one of the most popular insectary plants for honeybees, bumblebees and syrphid flies. Phacelia honey is known to be clear and delicate. Flowering begins 6–8 weeks after germination, though the plant needs 13 hours of daylight to bloom. Used as a cover crop or intercropped in row plantings, it can increase beneficial insect diversity and populations in gardens, fields, orchards and vineyards while suppressing weeds. It winter kills at 18˚ and can be turned under. Feathery leaves look similar to Sweet Cicely. Seed will germinate in cold soils. Thrives in dry to moist soils. ~280 seeds/g. ✿ ③ **NEW!**



**A**=1g, $1.10 **B**=4g, $3.00 **C**=20g, $6.00

## PHLOX *P. drummondii*

Breck's sold 15 different kinds in 1885. The word phlox signifies 'a flame.' Phlox is among the most colorful annuals for summer and fall beds, borders or window boxes.

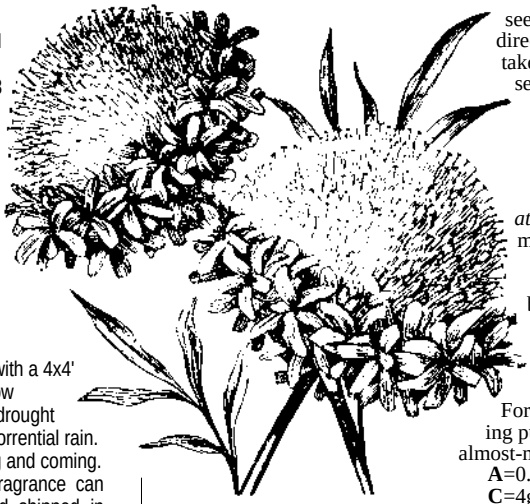
**Culture:** Start early indoors or direct sow in spring. Likes moist well-drained soil in full sun. One of the longest lasting in the vase. About the last to succumb to frost.

**5335PL Drummondii Mix** Annual. Enchanting fragrance from this 24" sprawling phlox with large umbel blooms in crimson, scarlet, pink, white, lavender and bicolor combinations with dark and white eyes. All seed is held over, germs at 89%. ~500 seeds/g. ②

**A**=0.4g, $1.10 **B**=2g, $2.80 **C**=8g, $6.00

**Twinkle** Annual. *These stars twinkle no more,* extinguished by slow sales.

**5339PH New Hybrids Mix** *P. paniculata* F-1 hybrid. Perennial, Zones 3-9. Blooms from June till frost. Excellent for borders and cutflowers. Mix of white, pinks, reds and lilacs. Freeze seeds 10 days before sowing indoors, or direct seed in cold soil. Slow germinator, takes 3–4 weeks. Likes full sun. 3'. ~111 seeds/g. ③



**A**=0.1g, $1.40 **B**=0.3g, $3.20 **C**=0.9g, $6.60

**5341PF QIS Formula Mix Pincushion Flower** *Scabiosa atropurpurea* Annual. Has brought us moderate success in restoring interest to the old-fashioned but underrated Pincushion Flower. These quilly beauties are perfect for cuts, each 2" bloom is a rounded mass of tiny florets on a long wiry stem. Harvest when blossoms are almost fully open. Also excellent for drying. Formula mix is nicely balanced, featuring purple, lavender, red, pink, white and almost-maroon. ~150 seeds/g. ③

**A**=0.2g, $1.50 **B**=1g, $3.00 **C**=4g, $8.00

**Pinks** See Dianthus, **5061**-**5066**.

**5343RP Flamenco Red Hot Poker** *Kniphofia uvaria* Perennial, Zones 5-9. You won't need to build a casino to get into this game of poker. If you get your thrills from hot colors rather than hot hands, this Red Hot Poker is no gamble at all. Our ante is only $1.60 and there will be many winners. It will flower the first year up to four weeks earlier than other standard varieties, setting spectacular 8" spikes atop sturdy 32" stems, in a riot of yellow, orange and fiery red tubular flowers. A field of these along the road can take your breath away. Blooms July-September and makes an unusual accent in cutflower arrangements. Likes well-drained sunny locations. Space at 18–24". For overwintering, mulch to protect the crowns from moisture and heaving. AAS. ~450 seeds/g. ②

**A**=0.04g, $1.60 **B**=0.12g, $3.20 **C**=0.36g, $6.00

"This is our first time order and we couldn't be more excited after hearing all the great things about Fedco and reading that informative and thought-provoking catalog."
–James Ouellette, Sweet Heart Farm, Essex Junction, VT

**5345AP Dwarf Allegro Oriental Poppy** *Papaver orientale* Long-lived perennial, Zones 2-8, grows 16". Fuzzy fern-like leaves, showy buds open to dazzling scarlet blooms with contrasting black eyes. Sow in June, transplant in October for flowers the following summer. Fits well with border perennials and ornamental grasses because plants go dormant after spring flowering. All seed is held over at 81% germ. ~5,000 seeds/g. ③

**A**=0.05g, $1.50 **B**=0.2g, $3.80 **C**=0.6g, $9.50

## POPPY *Papaver* spp.

Annual. Sensuous luxurious flowers, about 2½–3' tall. We offer two heirloom breadseed varieties especially suitable for baking. Poppies make wondrous cutflowers: choose buds that have straightened up but not quite opened. Immediately sear the cut stem with a lighter and put in water. Poppies open after several hours—an austere bouquet in the evening can become a riot of colors by the next morn.

**Culture:** Need light to germinate. Sow outside in spring after frost or sow in fall for early blooms the following summer. Thin to 9–12". Like full sun. Will self sow. **~2,000 to 7,000 seeds/g**.

**5350EO Elka OG** An unusual double-purpose poppy sporting enormous seed heads up to 1½" wide and 2" high in good years, somewhat smaller in drought. All the heads are now unvented so that the seed is not broadcast. From Chrenovec in central Slovakia, where families used to grow both the black Breadseed poppy and white-seeded Elka, and collect 50 kilograms of each for a year's cooking. When walnuts became widely available in stores, Elka almost completely disappeared. Lacks the distinctive flavor of the Breadseed variety but sweeter, with a more nutlike taste, none of the bitterness, and over 50% more oil content, making perhaps the best edible oil in central Europe. Plants grow 4' with white-lavender single blossoms, like calcium-rich soil, don't transplant well. For best results thin to at least 5–6" apart. Some folks tie a group of plants together for support against wind breakage. Isolate from other poppies by at least 250' if you wish to save seed. ☙1995. MOFGA-certified. ①

**A**=0.1g, $1.30 **B**=0.3g, $3.20 **C**=1.2g, $6.00 **D**=6g, $12.00

**5351ZO Ziar Breadseed OG** Twin to **5350** Elka bred to eliminate the vents in its large seed head so the blue seeds stay in the heads to be collected. Ornamental single pink to red petals with centers ranging from pale red through dark colors. Although the first batch of seeds had some difficulty adapting to the cold climates of Canada and Maine, Ziar has been selected over the past 20 years for better cold survival. Slovakian variety once a mainstay of the local cuisine. ☙1996. MOFGA-certified. ✿ ①

**A**=0.1g, $1.30 **B**=0.3g, $3.20 **C**=1.2g, $6.00 **D**=6g, $12.00

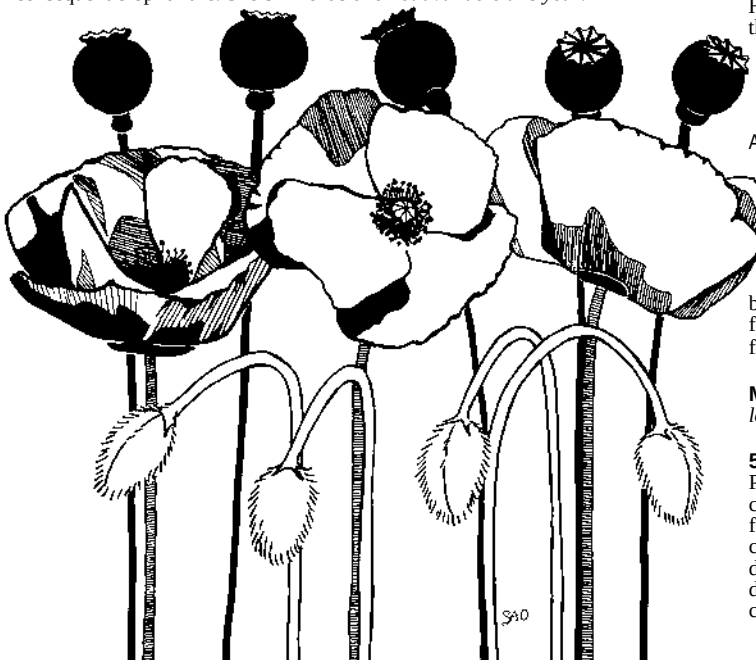
**5353BP Black Peony** We'd seen poppies in a lot of different colors, but never one like this fully double ruffled flower of the deepest purple, almost black. Strong tall stems. 2'. ⑤

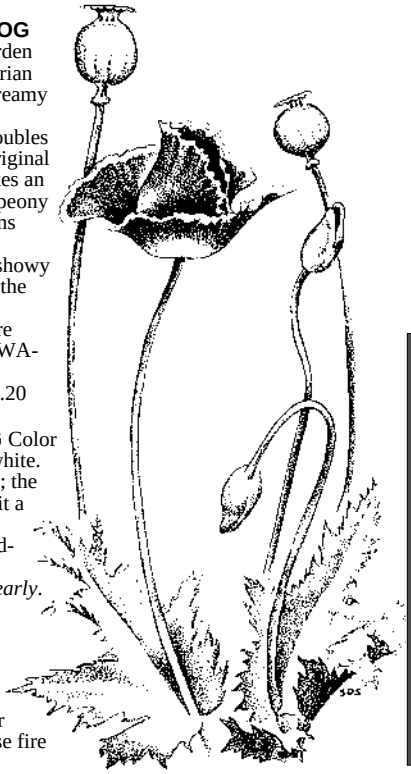
**A**=0.2g, $1.30 **B**=1g, $3.20 **C**=5g, $6.00

**5359DF Danish Flag** According to legend, Denmark's flag came from the sky to King Valdemar II in 1219. The origins of the *Danebrog* or Danish Flag poppy, are more obscure but predate 1888. Flag is named for the white spots at the base of the petals that form a cross in the center of the brilliant scarlet flowers somewhat mimicking the Danish flag. The lush single blooms, more than 4" across with fringed petals, sit atop 27" stems with blue-green foliage. The attractive large seedheads that follow the showy blooms are ideal for drying. All seeds are held over at 77% germ. ③

**A**=0.2g, $1.20 **B**=1g, $2.80 **C**=7g, $5.50

**Drama Queen OG** The Lindsay Lohan of poppies had a breakdown and consequent crop failure. She's in rehab and *not available this year*.





**5368FO Flemish Antique OG** This old-fashioned cottage garden charmer adds a touch of Victorian elegance. Whorled petals of creamy ivory brushed with touches of salmon-red in singles, semi-doubles and doubles now true to the original strain. Blue-green foliage makes an intense backdrop for these 4" peony blooms. 3' plants stood the rains with aplomb and were still blossoming in October. Very showy in indoor arrangements. After the blooms are done, the large blue-green oblong seedpods are highly prized as everlastings. WA-certified. ①

**A**=0.2g, $1.30 **B**=1g, $3.20 **C**=5g, $6.00

**5371RO Fluffy Ruffles OG** Color range includes red, pink and white. Double, but not a full pompon; the fringes on the petal ends give it a spider-aster or cactus-dahlia look. Reblooms after deadheading, though the blooms are smaller. 3'. Short crop; *order early*. MOFGA-certified. ①

**A**=0.2g, $1.50

**5374LB Ladybird** Not a reference to Lady Bird Johnson, Ladybird is instead British for ladybug, as the four black dots in the center of these fire engine-red blooms make a more-than-fanciful resemblance to the beloved beetle. Compact 1½" delicate single blooms atop wiry 15" stems. This cottage variety, great for edging the flower garden, dates back to 1876. Bloomed June 30 from a May 2 planting. ③

**A**=0.2g, $1.30 **B**=1g, $3.00 **C**=4g, $6.00

**5377LO Large Lavender OG** Passed along to Jeanne Griffin by a German friend, these tall poppies bloom in July with 2½–3" single flowers that have exquisitely shaded and fringed petals. Long blooming period. Large 1" seed pods can be used in dried arrangements. MOFGA-certified. ①

**A**=0.2g, $1.30 **B**=1g, $3.20 **C**=4g, $6.00

**5378SO Scarlet Peony OG** Large 5" bright scarlet blooms make a stunning show in the garden, especially en masse. Fully double blossoms tightly packed with silky deeply fringed petals draw attention in much the way a cheerleader's pompons do. Very floriferous from mid-August on. 2–3' tall. All seed is held over; germs 84%. MOFGA-certified. ①

**A**=0.2g, $1.20 **B**=1g, $2.80 **C**=4g, $6.00

**5379SH Shirley Double Choice Mix** Also known as Corn Poppy, was called Ghost or Fairy Poppy early in the century. Elegant semi-double blooms all summer in shades of pink, rose, salmon, scarlet and white. The name Shirley refers to the town in Surry, England, where the Rev. Henry Wilkes originally raised the variety. It was relatively new in 1890 when Hallock's Famous Long Island Seeds said it was "conceded by all to be still the finest Novelty that we can give you this spring. The flowers are like fairy work…so silky and tissue-like…Bending and trembling with life-like beauty, the surface is a perfect shimmer of light and color." 2½' tall. ②

**A**=0.7g, $1.20 **B**=7g, $2.80 **C**=28g, $5.50

## CALIFORNIA POPPY *Eschscholzia californica*

Annual. The state flower of California is excellent for borders, rock gardens, bedding. Likes full sun. Do not transplant. Direct seed in May after soil has begun warming. Make succession plantings for blooms all summer.

**5381JB Jelly Beans** Unlike the jelly beans of our childhood, these are eye candy only, except to the bees and hover flies attracted by their nectar. These Jelly Beans are vibrant in their bright irresistible colors: bubblegum pink, white, orange, raspberry red, pale orange—some striped, some doubled—against feathery silver-blue foliage. From an April 11 start, Donna's first blooms were on Bastille Day. Still bloomed after a 27˚ mid-October frost in 2012. 8–12" tall. ~700 seeds/g. ✿ ⑤

**A**=0.1g, $1.40 **B**=0.4g, $3.60 **C**=2g, $11.00 **D**=8g, $29.00

**Mission Bells** Unlike our 2003 Iraq War, mission accomplished! *No longer available;* we recommend its replacement, **5381** Jelly Beans.

**5384MT Yellow Mexican Tulip Poppy** *Hunnemannia fumariifolia* Perennial in Zones 9-11, grown as an annual. Silky, dainty and delicate, its classic lemon-yellow tulip-shaped blooms sit atop lacy ferny grey-green foliage. Although said to dislike wet feet, in 2011 it bloomed almost continuously all late summer and early fall, recovering valiantly from the drenching rains of three consecutive hurricanes. A generic form of a cultivar dating from 1934. 2' tall. Heldover seed tests at 60%; price reduced for clearance. *This is the last year we will carry.* ③

**A**=0.2g, $1.20 **B**=1g, $3.00

**5387LD Lazy Daze Formula Mix Portulaca** *P. grandiflora* (56 days) Annual. Snoopy's brother Spike, a mustachioed dog from the Mojave Desert, would love this trailing portulaca. Pointy succulent sage-green leaves would remind him of his beloved cactus, and the bright 2" double blossoms' tones of fuchsia, coral, yellow, white and red call to mind the arid sky's sunsets. With full sun and well-drained soil, will bring desert beauty blooming readily from July to September, trailing from baskets, pots or along the ground, 7" high and 10" round. Our best replacement for Tequila Mix out of 8 contenders. ~9,000 seeds/g. ④ **NEW!**
**A**=0.01g, $2.00 **B**=0.05g, $6.00 **C**=0.2g, $20.00

**Queen of the Meadow** See **5150** Joe Pye Weed.

## RUDBECKIA *R.* spp.

Named for Olaf Rudbeck (1660-1740), professor of botany at Uppsala in Sweden and a teacher of Linnaeus. Improved versions of these rugged North American native Black-Eyed Susans outstrip their wild counterparts in size and color.

**Culture:** Drought-tolerant. Start indoors at 70˚ and do not cover the seed. Germinates in 14–21 days at 70˚. Transplant after danger of frost at 15–18" apart. Likes full sun, good drainage.

**5393GS Goldsturm** *R. fulgida* Perennial, Zones 3-10. Domesticated cousin of the beloved Black-Eyed Susan, Goldsturm offers a profusion of shining golden-yellow flowers with dark central cones in August and September. Transplants well and has much larger flowers—up to 5" across—than the common wildflower. The 2' plants have long strong stems ideal for cutting and flowers last long in the vase. Start indoors 8–10 weeks before last frost. ~1,105 seeds/g. ✿ ⑤
**A**=0.1g, $1.60 **B**=0.4g, $3.50 **C**=1.2g, $7.00

**5395GD Gloriosa Daisy** *R. hirta* Annual. Impervious to the hottest sun and the poorest soils, these workhorses reward even the novice with nonstop flowers from late July until fall frosts. Flowers up to 6" on 2–3' stems have the hues of mixed sunflowers: yellow, gold, orange and reddish brown, surrounding chocolate-brown centers. They enhance the border and can be brought inside as cuts. Transplant or start seeds directly outdoors as soon as the ground can be worked. Space about 1' apart. ~1,800 seeds/g. ✿ ③
**A**=2g, $1.30 **B**=6g, $3.30 **C**=24g, $7.00 **D**=72g, $19.00

**5397GL Goldilocks** (86 days) *R. h.* Annual. Brighten bouquets and beds with these 4" golden-orange blooms with deep-set brown eyes. Long strong stems set on 24–30" plants make this an outstanding cutflower. Enough are fully double to give the effect of a patch of chrysanthemums. ~1,800 seeds/g. ✿ ③
**A**=0.1g, $1.60 **B**=0.3g, $3.80 **C**=1.2g, $8.50

**5399PS Prairie Sun** (88 days) *R. h.* Annual. Sixteen pointy golden petals with light yellow tips encircle a subtle green center. Flowers are very large and distinctive. Branching 24–30" plants have long stems, ideal for cutflowers. Judges on two continents were so impressed that they made Prairie Sun both an AAS and a Fleuroselect winner in 2004. ~1,500 seeds/g. ✿ ②
**A**=0.02g, $2.50 **B**=0.1g, $7.50

## SALVIA spp.

From the Latin *salvere*, 'to heal.' Wide-ranging genus with over 900 species throughout the world. In the Northeast they range from tiny lawn weeds to showy ornamentals to culinary sage. Members of the mint family, most have square stems and blue or lavender flowers with prominent lips.

**Culture:** Like full sun and dry conditions, require good drainage. In our climate, all should be started indoors.

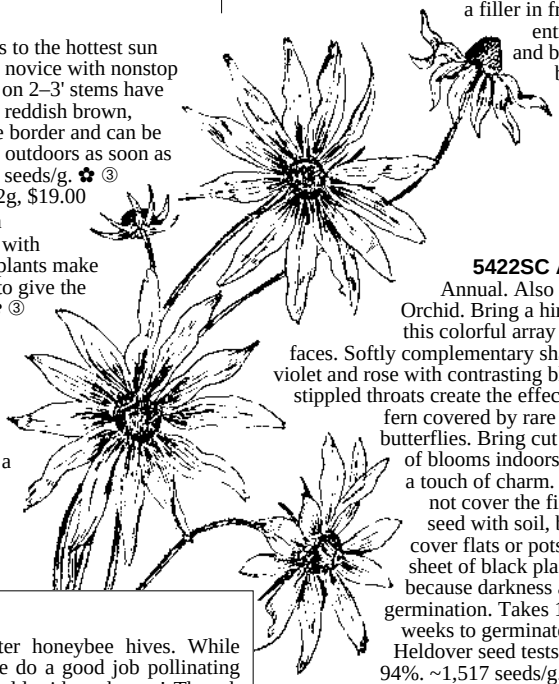
See also sages **4664**–**4666**.

**5406BB Blue Bedder** *S. farinacea* Perennial in Zone 8-10, grown as an annual. True blue flower spikes are abundant for weeks on bushy 3' plants. Grey-green foliage. Light aids germination. Start indoors in warm location (do not cover seed) 4–6 weeks before last frost, keep fairly dry for best foliage color, and transplant outdoors after danger of frost. ~900 seeds/g. ✿ ③
**A**=0.2g, $1.20 **B**=1g, $3.00 **C**=4g, $7.00

**5411GS Gentian Sage** *S. patens* Perennial in Zone 8-10, grown as an annual. Magnificent blossoms clear and bright, one shade lighter than cobalt blue. Each flower on the monkshood-like spike has a top petal "hood" that lunges across the pendant lower petals. Flower spikes 12–15" long, good for cutting. Start indoors 12–14 weeks before setting out. 2½' plants. ~130 seeds/g. ✿ ③
**A**=0.1g, $1.50 **B**=0.3g, $3.30 **C**=1.2g, $6.00 **D**=6g, $24.00

**5417SS Seascape** *S. f.* F-1 hybrid. Perennial, Zones 8-10, grown as annual. Even from way across the garden, this stunning mix of blues and silver grab your attention, be the day foggy and overcast or bright and sunny, whether you are near the coast or not. Early flowering blossoms on compact branching 13" plants excel whether clumped by themselves or mixed amongst others. Best in full sun, and tolerant of poor soil and some drought. Gazing at them in Donna's garden, though well inland, I imagined I was sailing on Penobscot Bay admiring the alternating waves of color. Start seeds indoors 10–12 weeks before last frost for best bloom. ~1,050 seeds/g. ✿ ④
**A**=0.1g, $1.70 **B**=0.3g, $3.50 **C**=1.2g, $9.00 **D**=6g, $35.00

**5419TS Tricolor Salvia** *S. viridis* Annual. Also known as Painted Sage. This prolific little beauty is splendid as a dried flower or a filler in fresh arrangements. Although its leaves are entirely green, its name comes from its white and blue flowers set off by large pink-to-purple bracts. Easily air-dried, it will remain very colorful, flowering until frost if old blooms are removed. 18" stalks. Start indoors 4–6 weeks before last frost. Needs well-drained soil. ~350 seeds/g. ✿ ③
**A**=1g, $1.20 **B**=4g, $3.00 **C**=12g, $6.00



**5422SC Angel Wings Schizanthus** *S. pinnatus* Annual. Also known as Butterfly Flower or Poor Man's Orchid. Bring a hint of the exotic to your garden by growing this colorful array of delicate orchid-like flowers with pansy faces. Softly complementary shades of pink, violet and rose with contrasting blotched and stippled throats create the effect of an 18" fern covered by rare little butterflies. Bring cut sprays of blooms indoors for a touch of charm. Do not cover the fine seed with soil, but do cover flats or pots with a sheet of black plastic because darkness aids germination. Takes 1–2 weeks to germinate. Heldover seed tests at 94%. ~1,517 seeds/g. ③
**A**=0.2g, $1.30
**B**=1g, $3.00
**C**=5g, $5.00

**5423SO Northern Sea Oats OG** *Chasmanthium latifolium* Perennial, Zones 5-11. We admire its 2' strong arching stems dancing with airy green flattened seedheads. Lovely in arrangements from June to September, after which its bamboo-like foliage changes from green to a rich brown, providing winter contrast. The dried seedheads make interesting accents in handmade paper. Self-sows freely if not deadheaded. Likes moist conditions and is lighter green when grown in full sun. AGRIOR-certified. ~260s/g. ③
**A**=0.2g, $1.40 **B**=1g, $4.50
**C**=4g, $14.00

### Native Pollinators

Each year it seems harder and harder to overwinter honeybee hives. While honeybees are not native to North America, they sure do a good job pollinating our agricultural food crops. It's hard to imagine a world without honey! Though we love them dearly, we must point out that it takes 10,000 or more honeybees to do the same amount of pollinating as only 250 native mason bees! Natives fly earlier and later in the day than honeybees and through wetter and colder conditions. Also, they are more successful pollinators because they carry pollen all over their bellies instead of in "pollen baskets" on their hind legs.

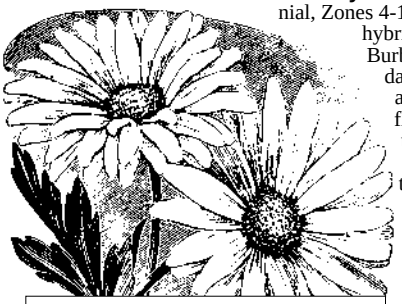
Most native bees are solitary dwellers, unlike the social honeybee. They have single nests in holes in wood or in the ground. Two of the best species for pollinating tree fruits are the **blue orchard mason bee** and the **leafcutter bee**. One way to encourage native bees is by growing plants that provide early-season forage, like willows, dogwoods, amelanchiers and viburnums. You can also invite bees to the garden or orchard by building simple nest boxes.

### Wooden Block Nest Box for Solitary Native Bees

Of course native bees can find their own nesting spots, but it's easy to help them by drilling horizontal holes into fence posts or by making wooden block nest boxes…Ready-made nest boxes (**8939**) are also available from OGS, page 137.

–Lauren Cormier, adapted from "Pollen Nation" in our 2015 Fedco Trees catalog, page 33.

**5425SD Alaska Strain Shasta Daisy** *Leucanthemum* x *superbum* Perennial, Zones 4-10. The first man-made flower, hybridized by the legendary Luther Burbank. It took him 17 years. His daisy looks good with Gaillardia and Coreopsis. The clean white flowers with bright yellow centers make good cutflowers and border plants for sunny locations. One of the easiest perennials to grow; will usually bloom first year if started indoors in spring and transplanted when soil warms. 3' tall. ~750 seeds/g. ②



"The busy bee has no time for sorrow."
–William Blake

**A**=0.5g, $1.00
**B**=4g, $2.50
**C**=16g, $5.00

**5428CD Crazy Daisy** *L.* x *superbum* Perennial, Zones 4-10. We're crazy for this daisy because its quilled petals make it unlike any other in the Shasta class. Almost all of the 2½–3" creamy white blossoms are fully double and reminded us of dahlias. Bloomed the second year for Donna Dyrek starting on July 6 and put on a good show for nearly a month. The later blossoms were less doubled, showing the small yellow centers more. Required no protection to overwinter in Central Maine, but mulching is recommended for colder areas. 24–28" plants like a well-drained location in full sun. Need a cold period and long days to initiate bloom. ~900 seeds/g. ②

**A**=0.1g, $1.60 **B**=0.3g, $3.50 **C**=1.2g, $7.00

**5431RS Rocket Mix Snapdragon** *Antirrhinum majus* (120 days) Perennial in Zone 7-10, grown as an annual, and occasionally overwinters even in central Maine. F-1 hybrid always very popular with commercial growers. Its long stems and vibrant colors: pink, red, yellow, orange, white and orchid on 2–3' plants make Rocket the standard snapdragon for cutting. For local production of cuts, harvest when more than half the flowers are open. Will last 5–8 days. Withstands light fall frosts. Sow indoors at 65–75˚. Do not cover the seeds. Grow on at 60˚; warmer temperatures cause leggy transplants. Set out after danger of frost, spacing at 9–12". ~5,000seeds/g. ⑤

**A**=0.025g, $2.50 **B**=0.125g, $6.50 **C**=0.5g, $21.00

**5434SZ Helena Mix Sneezeweed** *Helenium autumnale* Perennial, Zones 3-10. Also known as Sunny Bride. Supposedly used for snuff in earlier times, hence its common name. A rich chromatic scale of bronze, brown, crimson and yellow for an end-of-summer display. Single flowers resemble Coreopsis but have a large center "button" like coneflower, and cover the tops of branching upright 4–5' plants. Combine with asters and phlox for great late-season color. Not fussy, easy to grow, excellent for cutting. At its prime when most perennials have finished blooming. Generally a low germinator; needs 2–3 weeks. ~5,000 seeds/g. ③

**A**=0.05g, $2.50 **B**=0.2g, $9.00

## SORGHUM spp.

Annual. Originally from Africa, sorghum is cultured in the South for the sweet syrup of its stalks. In the ornamental trade it is used as a focal point for large arrangements.

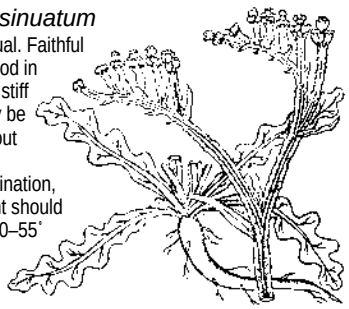
**Black Sorghum** *S. nigrum* Dropped because of slow sales; *no longer available.*

**5437BR Red Broom Corn** *S. vulgare* (105 days) Not a true corn, but a sorghum, broom corn looks and grows like corn but develops no ears, instead producing a tall spray of seed heads at the top of the plant in lieu of a tassel. These 2–3' sprays are laden with shiny red 1/8" seeds that birds love. Incorporate seeds into edible bird-feeder wreaths or leave sprays intact to add variety to traditional fall decorations. To make natural straw brooms, comb seeds out of the dry stalks and tie the seedless heads together. Stalks, generally 7–9', will grow up to 10' in an optimal season. ~48 seeds/g. ①

**A**=4g, $1.30 **B**=12g, $3.00 **C**=36g, $5.00 **D**=180g, $15.00

A nesting bumblebee queen incubates her eggs by lying on top of them and vibrating her flight muscles to generate heat up to 85˚.

## STATICE *Limonium sinuatum*



Perennial in Zone 8-9, grown as an annual. Faithful standby in everlasting bouquets; also good in fresh arrangements. Reaches 2–2½' on stiff winged bright green stems. Flowers may be gathered for drying many times throughout summer.

**Culture:** Seed is rubbed for easier germination, which takes 5–14 days at 70˚. Some light should reach the seed. Vernalize seedlings at 50–55˚ until they reach the 5-leaf stage, then increase temperatures to 60–70˚. Grow in full sun. Tolerant of dry conditions. **~300 seeds/g.**

**5444SB Pale Blue Seeker** Medium-blue flowers, the best blue in our trial. ③

**A**=0.2g, $1.70 **B**=1g, $5.00 **C**=4g, $13.50

**5449FP Fortress Purple** Donna's choice among 23 varieties of statice in her 2009 trial plot. All seed is held over, tests at 89%. ⑤

**A**=0.2g, $1.50 **B**=1g, $4.40 **C**=4g, $8.50

**5451RC Compindi Rose** Rich carmine. The best rose-colored variety, from Benary in Germany. ②

**A**=0.2g, $1.60 **B**=1g, $5.00 **C**=4g, $12.00

**5453QW QIS White** Like frilly tutus in the ballet, this double white statice dances circles around all the others—and we've looked at a lot of the others. 2½' stems bear clean white full flowers with no yellowing or browning. A classic. ⑤

**A**=0.2g, $1.50 **B**=1g, $4.40 **C**=4g, $10.00

**5456QY QIS Yellow** A new color of this excellent series designed for market growers. Clear yellow prominent flowers on 2½' stems. Bright and beautiful. ⑤

**A**=0.2g, $1.60 **B**=1g, $4.50 **C**=4g, $11.00

**5464MS Mixed Colors** (115 days) Mix includes lavender, rose, purple, white. ②

**A**=0.4g, $1.20 **B**=2g, $2.80 **C**=6g, $6.00 **D**=30g, $18.00

**5466SM Sunset Mix** (~115 days) Warm shades of apricot, peach, rosy red, yellow and white; guaranteed to mix and match in arrangements, as filler, or in the garden. The different colors mature at slightly different times. 26" tall. ⑤

**A**=0.4g, $1.60 **B**=2g, $6.00 **C**=6g, $14.00

**German Statice** *Goniolimon tataricum* Perennial, Zones 4-10. Dropped for slow sales. *No longer available.*

## STOCK *Matthiola incana*

Annual. Old-fashioned bedding plant formerly known as Gilliflower, with multiple spikes of usually double flower clusters. Genus is named for Pierandrea Mattioli, a 16th-century Italian botanist, while *incana* means 'hoary' or 'light grey,' referring to its soft grey leaves. Good in beds, borders and containers.

**Culture:** Tolerates frost to around 26˚F. For earlier blooms, sow indoors at 60–65˚ 6 to 8 weeks before setting out after danger of frost. Likes moderately fertile moist well-drained soil, full sun. Stocks are Crucifers; for good rotation, don't plant them where you recently had brassicas or follow them with members of that family. **~600 seeds/g.**

**5475VM Vintage Mix** We're bullish on this fragrant mix of pink, lavender, red, rose, peach, yellow, copper and white bred for larger flowers and early bloom. About half will have fully double blooms. Sturdy well-branched 15–20" plants. ⑤

**A**=0.1g, $1.90 **B**=0.5g, $6.00 **C**=2g, $12.00

## STRAWFLOWER *Helichrysum bracteatum*

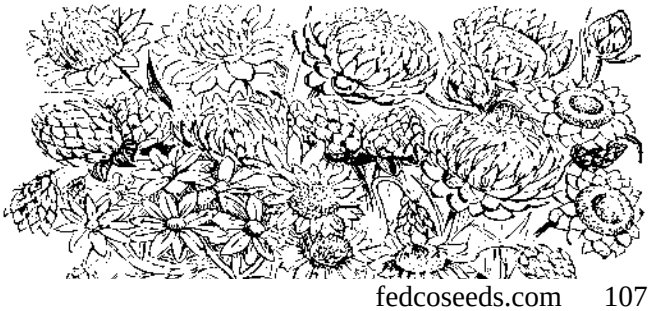
Annual. The freeblooming strawflower is good for border color and excellent for drying. Monstrosum varieties grow 30–40" tall, have 2–2½" fully double flowers. **Culture:** Grow in full sun. Gather blossoms before fully opened. Likes warm weather but will bloom into fall. Germinate at 70–75˚; grow on at 65–70˚ days and 60˚ nights. Do not overwater. Transplant in 6 weeks at 12" spacing. **~1,300 seeds/g**.

**5483FB Monstrosum Fire Ball** Bright red. ③

**A**=0.2g, $1.20 **B**=1g, $3.20 **C**=5g, $5.50

**5488MX Monstrosum Mix** Hot pink, light pink, white, gold and deep rose. ③

**A**=0.33g, $1.10 **B**=7g, $2.80 **C**=28g, $6.00



## SUNFLOWER *Helianthus annuus*

Annual. Sunflower remains have been found in the Tabasco region of Mexico dating from 4100 BCE. Prized for their seeds by humans and birds, and for cutflowers by market growers, sunflowers also add a lighthearted touch to gardens.

**Culture:** Easy to grow. Start indoors 3–4 weeks before last frost at temperatures of 65–75˚ or direct sow after frost, 3 to a pocket. Thin to best plant, 1' or more apart. Rich friable soil yields tallest plants; drought stunts growth. Will readily self-sow; for some fun leave a few volunteers in strategic locations.

**Pollen or pollen-free?** Although flower arrangers often eschew sunnies with pollen, Eliza Lindsay of Portland, OR, speaks for our pollinators: "Sunflowers that produce pollen are my favorite. They feed the bees first and later the birds." She says to grow sunflowers for cutting and to feed your pollinators, too, you must allow some of the flowers to remain uncut to complete their life cycle. Branching varieties are tops for this purpose since taking cuts encourages branching.

She offers tips for handling harvest and post-harvest for varieties with pollen. "The trick to sell them is to harvest prior to pollination. Once pollinated, flowers begin to senesce. Harvest when the petals are fully colored, clearly visible, but unexpanded and wrapped around the flower head. Harvest with long stems set in clean water in a cool dark place. Change water daily and recut stems as necessary. They will fully open in a few days, produce pollen in the vase, but have a long vase life."

**All varieties have pollen unless noted otherwise.**

Varieties open-pollinated unless otherwise indicated.

See also **5906** Hopi Dye; and **8191** Oilseed Sunflower in the OGS section.

**5500AO Autumn Beauty Mix OG** (70-90 days) Our second-best-selling flower variety, a 6–8' multibranching beauty. Produces a lovely mixture of earthen shades, petal colors ranging from bright yellow to bronze and purples. Most have a characteristic red ring enclosing a black center. Blossoms 4–6" across are perfect as the center of giant flower arrangements. According to *The Avant Gardener*, "still reigns supreme as the most desirable multi-flowered ever-blooming mixture." CCOF-certified. ~45 seeds/g. ✿ ③

**A**=1g, $1.20 **B**=4g, $2.80 **C**=28g, $6.50 **D**=1lb, $62.00

**5503FT Fantasia** F-1 hybrid. Stately 4–5' stalks bearing 4–8" perfectly round pollen-free flowers. The best of 16 varieties in my grow-out. I noted a perfect blossom that opened with the month of September and was most gorgeous on Sept. 8. It was 5" across, yellow-orange with a striking dark brown center. Fantasia is a formula blend with colors ranging from white to darkest red, with double and semi-double flowers. Let the lights dim and the fantasy begin. ~22 seeds/g. ③

**A**=0.5g, $1.30 **B**=2g, $4.40 **C**=10g, $10.00 **D**=40g, $32.00

**5507FL Florenza** Attracted many comments in past sunflower trials at Common Ground Fair. Stunning brown-centered 6" flowers in maroonish red with yellow tips and a hint of yellow around the center. Mixes well with other sunflowers; makes the whole bouquet "pop." 3½' tall. ~40 seeds/g. ✿ ②

**A**=0.5g, $1.50 **B**=2g, $4.40 **C**=8g, $9.00 **D**=24g, $19.00

**5509GH Green Heart** F-1 hybrid. Stole the show and stole my heart with its bold display in my back bed in Colrain, MA. Had I planted them close to the road the golden-yellow blooms with their amazing 4" lime-green centers would have literally stopped traffic. These make compelling cutflowers and are pollen-free. Tall straight single stems grow up to 5'. All seed is held over and tested at 86%. ~15 seeds/g. ③

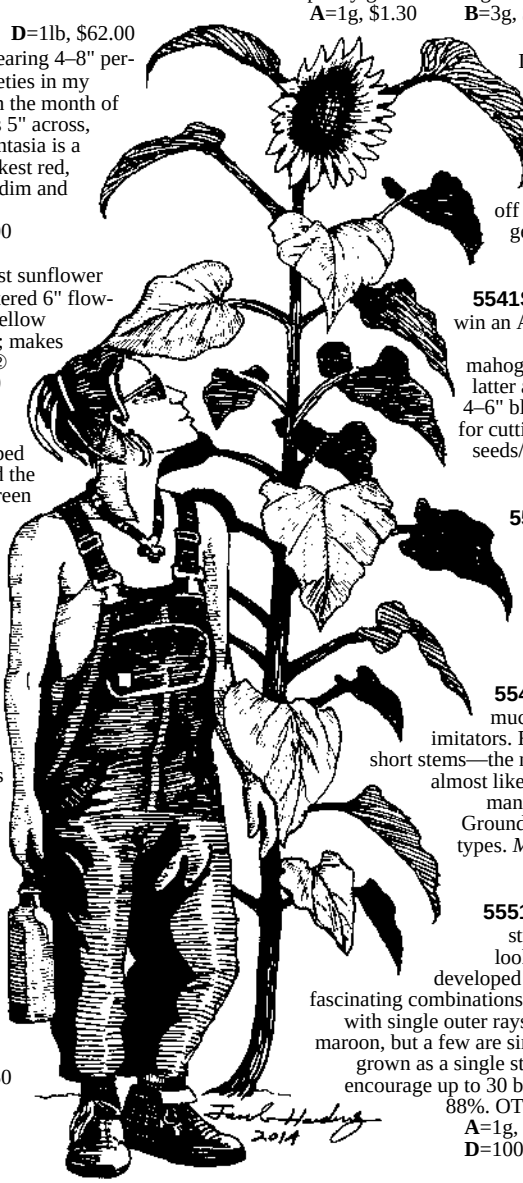
**A**=0.6g, $2.00 **B**=2.4g, $6.20 **C**=12g, $16.00 **D**=36g, $42.00

**5512JK The Joker** (60 days) F-1 hybrid. If your sunflowers need a New Deal, add this Joker to your deck. Joker is a bicolored pollenless beauty with two rings of petals. An interior short yellow fringe resembling eyelashes radiates from the brown disk and accentuates the big orangy-maroon yellow-tipped outer petals. Rated among the best sunflowers for cutting by horticulturalists at the University of Florida. Mottled red stalks grow 5–7' with multiple branching. ~22 seeds/g. ③

**A**=0.5g, $1.30 **B**=2g, $3.80 **C**=6g, $7.50 **D**=1oz, $20.00

**5515LO Lemon Queen OG** Luxuriant 8" blooms with lemon-yellow petals surrounding striking solid brown centers. Although it can grow up to 10' tall in rich soil, its powerful stems do not lodge. Likes high fertility; makes shorter stems and narrower petals in average soil. Not early; bloomed for Donna Dyrek in late August. Heldover seed has 96% germ. MOSA-certified. ~45 seeds/g. ✿ ②

**A**=1g, $1.10 **B**=5g, $2.80 **C**=20g, $5.50 **D**=1lb, $54.00




**5518GS Mammoth Grey Stripe** (120 days) A traditional variety of giant (usually 6–12') single-stem sunflower with large seed heads. The one to grow if you want to eat the seeds. Beloved by birds and kids. ~9 seeds/g. ✿ ②

**A**=14g, $1.40 **B**=56g, $3.60 **C**=224g, $10.00 **D**=896g, $30.00

**5521MR Moulin Rouge** (65 days) F-1 hybrid. A favorite among commercial growers for its color, though not all stems are long enough for cutting. 5–6' multibranching stems topped by gorgeous 5–7" dark-red pollen-free blossoms, somewhat short-lived. Burgundy petals become almost black close to the disc. The Moulin Rouge was a nightclub in Paris where Toulouse-Lautrec created much of his work, using red-headed beauties as models. This sunflower would make a fine subject for such an exuberant artist. ~22 seeds/g. ✿ ③

**A**=0.5g, $1.40 **B**=2g, $4.00 **C**=10g, $10.00 **D**=40g, $30.00

**5530PC Pro-Cut Lemon** (55 days) F-1 hybrid. Pollen-free and day-length neutral, this sunflower was bred for the professional cutflower farmer but will please any gardener who likes splashy bouquets. 3–4" flowers have lemon-yellow petals surrounding a dark disc on 5' non-branching plants with strong stems. Makes the cut every time with its early blooms. ~22 seeds/g. ③ **BACK!**

**A**=1g, $1.40 **B**=2g, $2.50 **C**=6g, $5.50 **D**=24g, $16.00

**5533RE Ruby Eclipse** (55 days) F-1 hybrid. We don't know if the ruby-red petals with lemon tips will eclipse all others, but they are a vivid addition to any collection of sunflowers. The gorgeous pollen-free 4–5" flowers with dark centers sometimes shade into pink. 6' branching plants. ~25 seeds/g. ③

**A**=0.5g, $1.40 **B**=2g, $3.20 **C**=10g, $10.00

**5536SG Schnittgold** Handsome single-headed 5' sunflower. Its double ring surrounded by deep yellow petals makes a striking display. The center pollen ring is black and flat, surrounded by an auxiliary ring of brown. *Schnitt* means 'cut' in German; with 8–10" blooms, this variety makes a superb cutflower. Karen Pratt points out that Schnittgolds, when mature, get a hollow in the center—perfect for making the sunflower bird wreaths sold in pricey garden catalogs. ~25 seeds/g. ✿ ②

**A**=1g, $1.30 **B**=3g, $2.80 **C**=12g, $6.60 **D**=60g, $22.00

**5539SO Selma Suns Mix OG** Trialer Donna Dyrek rates these her favorite sunflowers for their fragrance, beautiful diversity and plethora of polyheading 6" blooms. Selma's heads have small dark centers, pointed petals, and display various hues and shades including yellows, golds, maroons and reds. Dyrek reports that Selma "flowers forever if the squirrels don't rip off the heads." 6–7' tall. All seed is held over at 88% germ. MOFGA-certified. ~55 seeds/g. ✿ ①

**A**=1g, $1.30 **B**=3g, $2.80 **C**=12g, $6.50 **D**=60g, $22.00

**5541SY Soraya** (80 days) The first sunflower ever to win an AAS (2000), Soraya impressed the judges with its luminescent deep orange petals, contrasting dark mahogany center disks, and sturdy branching habit. The latter accounts for its astonishing productivity, up to 25 4–6" blooms per plant, borne on stout 20" stems, perfect for cutting. Almost pollenless. 6' plant spreads 2–3'. ~60 seeds/g. ②

**A**=0.5g, $2.00 **B**=4g, $8.00 **C**=16g, $24.00 **D**=64g, $75.00

**5545SM Summer Sensation** (65 days) Vibrant 8" flowers, yellow surrounding a dark disk, on 5' plants. Can be grown as a single stem or pinched to branch out. Seedhead can be crafted into those decorative natural birdfeeders—if you don't snack on the seeds first. ~10 seeds/g. ✿ ③

**A**=2g, $1.30 **B**=6g, $3.20 **C**=30g, $9.00 **D**=1lb, $102.00

**5548SD Sungold Dwarf** (60 days) Danish variety much nicer than the original Teddy Bear or any of its imitators. Fully double polyheaded blooms growing on very short stems—the main stalk is only 2'—give the fuzzy effect. Habit almost like a well-behaved dahlia. Drew much attention and many comments at our sunflower display at Common Ground Fair. Blooms hold well compared to other dwarf types. *May contain some taller off-types.* ~50 seeds/g. ②

**A**=1g, $1.10 **B**=3g, $2.80 **C**=12g, $6.00 **D**=60g, $20.00

**5551TO Tiger's Eye OG** (85-100 days) If you look straight into the center of the seedhead, you will be looking into the eye of the tiger. This mix, originally developed by Seeds of Change a decade ago, includes some fascinating combinations. Most flowers have double-petaled fluffy centers with single outer rays in sunset shades of gold to bronze to copper and maroon, but a few are single-petaled gloriosa types. The 6–8' plant can be grown as a single stalk for a large terminal flower or pinched back to encourage up to 30 branches with 4–8" flowers. Heldover seed tests at 88%. OT-certified. ~20 seeds/g. ✿ ④

**A**=1g, $1.30 **B**=4g, $3.20 **C**=20g, $8.00 **D**=100g, $30.00

**5555VI Vanilla Ice** *H. debilis* The closest we have seen to a white-petaled sunflower. Though their true color is more cream or pale yellow, the petals make a great contrast to the rich dark disk in the center. Superior to the better-known Italian White in our trial. Wini Noyes advises to "start really, really early and don't transplant until they are very strong." Polyheaded with 5' stalks, 3–4" blossoms. ~225 seeds/g. ✿ ③

**A**=1g, $1.30 **B**=3g, $3.20 **C**=12g, $6.50 **D**=60g, $22.00

**5599SS Sunflower Sampler** For those who wish to get in on the sunflower craze without spending a pile of jing, we'll mix seed for a half dozen or so varieties into one package. Create a lovely display for a dollar forty. No dwarfs or mammoths. Tim Brown of Rutledge, TN, says, "I love the mixed packets. I've tried to calculate the joy/cost ratio of the $1.30 [now $1.40] Sunflower Sampler. Always a knockout—and how do I add in the value of the joy they brought to my neighbor who had never seen darker sunflowers? I love the range of seed sizes in the sunflower packets." ✿ ③

**A**=1g, $1.40 **B**=3g, $3.50 **C**=9g, $6.80 **D**=90g, $32.00

**5603AO Sweet Annie OG** *Artemisia annua* (120 days) Annual. Also known as Sweet Wormwood. The scent of Common Ground Fair. We associate its pungent fragrance with the Fair where so many vendors offer it and where we sell more seed than for any other item. John Pino has brought it to the Fair Farmers' Market by the trailerload. Annie grows up to 5', with light green leaves valued for everlasting wreaths which emit their distinctive redolence all winter. Used in China, where it's known as *qing hao*, as an antimalarial and antimicrobial. Reseeds itself vigorously. Seed must be frozen for 2 days, then germinated in light. WA-certified.~250 seeds/g. ①

**A**=0.2g, $1.40 **B**=0.6g, $3.50
**C**=4.8g, $7.50 **D**=24g, $30.00

**5611PP Perennial Sweet Pea** *Lathyrus latifolius* Zones 3-10. The traditional English cottage sweet pea, grown by Jefferson in 1771, thrives in cool climates, loves sun and climbs 6'. Useful as a screen. Comes in shades of rose, white and pink in big clusters. Good cutflowers. Soak seeds up to 24 hours before sowing outdoors in early spring. Can take 3–4 weeks to germinate. ~20 seeds/g. ②

**A**=1g, $1.30 **B**=3g, $2.80 **C**=12g, $5.50

## SWEET PEA *Lathyrus odoratus*

Annual. Native to Sicily, first domesticated around 1699 when amateur botanist and monk Father Francis Cupani shipped seed for the variety that bears his name to a hothouse grower in England. In the late 1800s extensive breeding work, especially by Henry Eckford, expanded the range of available colors. Around 1900 Silas Cole, gardener to Earl and Countess Spencer, found a sport with much larger ruffled flowers but less scent than Eckford's varieties. It created a sensation when it was exhibited in 1901. From this variation derive all modern strains including Spencer, Cuthbertson, Knee-High and Mammoth. As interest in fragrance revived, Bodger Seeds Ltd. obtained as many of the pre-Spencer varieties as possible and created Old Spice Mix in the 1970s.

**Culture:** Soak seeds for 12–24 hours prior to sowing. For earliest blooms, sow indoors 2 months before setting out, or sow direct in spring. Need darkness for germination, which takes 10–21 days at 60˚. Old catalogs recommended sowing in a 4–5" trench and filling in as the peas grew. To reduce root fungal diseases, always select well-drained locations and rotate them from year to year. Likes full sun and moist rich soil, but many perform poorly in heat, so mulching is recommended. If you are growing for cuts, avoid windy locations, as exposure will make plants stockier and stems shorter. Requires support. We use **9071** Trellis Plus. Harvest flowers frequently to keep blooms coming. Last only 3 days in the vase, but perfume the air incomparably. Give your love a bouquet of these! **~12 seeds/g.**

Perennial sweet pea is above.

**5614AM America** An antique striated variety, arresting both to eyes and nostrils. Each blossom contains subtle variations of bright reds with creamy white streakings. Heavily perfumed. Looks lovely next to Cupani. First offered in 1896 by Morse-Vaughan. Vines grow to 3'. ✿ ③

**A**=2g, $1.20 **B**=8g, $3.20 **C**=24g, $7.00 **D**=120g, $28.00

**5620BK Black Knight** One of 115 varieties Eckford exhibited at the Crystal Palace in 1900, bred in 1898. Highly scented deep maroon flowers tolerant of heat. 5–6' vines. All seed is held over. ✿ ③

**A**=2g, $1.20 **B**=8g, $3.20 **C**=24g, $7.00 **D**=120g, $30.00

**5623CU Cupani** Oldest and among the most fragrant of all sweet peas. Celebrated its 300th birthday in 1998 amidst a surge of renewed interest. Named for the Sicilian monk who found these bicolors growing wild, Cupani combines deep maroon-purple upper petals with deep violet-blue lower petals. Grow Cupani for enticing intoxicating aroma. 5' vines. ✿ ③

**A**=2g, $1.20 **B**=8g, $3.20 **C**=24g, $7.00 **D**=120g, $30.00

**5626KH Knee-High Mix** Semi-dwarf 20" bush-type plants need no support, produce full-length stems. Mix includes chianti, pink, blue-violet and lavender. All seed is held over. ✿ ②

**A**=7g, $1.30 **B**=28g, $4.00 **C**=84g, $9.00 **D**=1lb, $45.00

**5629MM Mammoth Mix** (75 days) 4–6' staking variety. The best tall mix in our many gorgeous trials. Though temporarily slowed by heat waves, revives during each cool spell and never stops blooming from July to September. Long stems make ideal cutflowers. Mixture of crimson, scarlet, white, lavender, deep rose, medium blue and pink. The purples and reds are the most fragrant. Year after year the least finicky and most dependable performers in heat. ✿ ③

**A**=7g, $1.50 **B**=21g, $3.50 **C**=63g, $8.00 **D**=1lb, $48.00

**5632MC Mrs. Collier** A white sweet pea with real fragrance! We thank Marilyn Barlow of Select Seeds in Union, CT, for bringing it to our attention. Even in the hot humid nights of August, 2010, the heavenly blooms lasted and exuded way more scent than the whites in the Mammoth mix. Introduced in 1907 by Dobbie & Company. 5–6' vines. ✿ ③

**A**=2g, $1.20 **B**=8g, $3.20
**C**=24g, $7.00 **D**=4oz, $20.00

**5635MS Streamers Mix** (60 days) Relentless, our sweet pea trialer, is passionate about the genus: he grows them, he trials them, he breeds them. So, when a sweet pea stands out for him, it really stands out. At over 5' tall with abundant fragrance, these Streamers really rocked. Known in the trade as "flakes" for the boldly streaked white patterns rippling on a mix of colors—blue, lavender, pink, purple, chocolate, orange and scarlet. Along with its good stems, huge blossoms and excellent longevity as a cut flower, they make this 2002 introduction a real coup for pre-eminent New Zealand breeder Keith Hammett. ✿ ③

**A**=2g, $1.50
**B**=8g, $4.00
**C**=24g, $9.00
**D**=4oz, $30.00

**5643CT Creeping Thyme** *Thymus serpyllum* Perennial, Zones 3-10. Also known as Mother-of-Thyme or Brotherwort. Creeping sweet-scented ground cover with purple flowers good in rock gardens, between stepping stones or on dry slopes. Likes good drainage, full sun and alkaline soil. Plants grow slowly from seed, may be started indoors two months before planting, or outside in early spring or fall. Sow thickly, do not cover seeds. 2". ~6,290 seeds/g. ③

**A**=0.1g, $1.50 **B**=1g, $3.50
**C**=3g, $6.00 **D**=30g, $35.00

## TITHONIA *T. rotundifolia*

Annual. Also known as Mexican Sunflower. Attract butterflies with these tall floriferous beauties. The dressy blooms often exceed 4" across and continue over a long season.

**Culture:** Heat-loving plant closely related to the zinnia. Sow outdoors after danger of frost in 70–85˚ soil, or start indoors 6 weeks before last frost date. Tithonia sulks in the cold so don't bring it out too soon. **~100 seeds/g.**

**5647GF Goldfinger** Bond with Goldfinger! 4' tall with bright orange 3–4" blooms comparable to Torch's. Upright and uniform habit, but more dwarf than Torch, yet with nearly as much charm and greater versatility. Heldover seed tested at 81%. ✿ ③

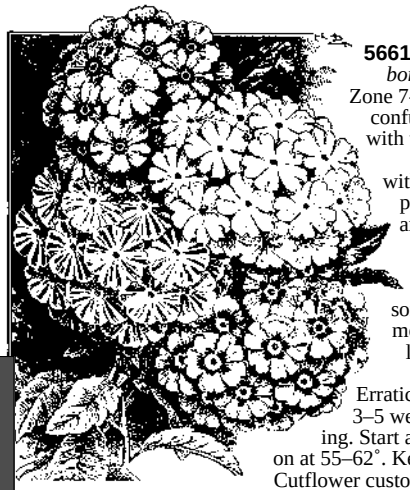
**A**=0.2g, $1.20 **B**=0.6g, $3.20 **C**=1.8g, $5.50

**5649TH Torch** (120 days) Stately 6' plants with velvety dark green leaves bear scarlet-orange 4–5" blooms that attract hummingbirds and monarch butterflies. My fondness for this showy flower is shared by our customers. 1951 AAS. ✿ ③

**A**=0.2g, $1.10 **B**=0.6g, $2.80 **C**=7.2g, $5.00 **D**=28.8g, $10.00

**5657VH Southern Charm Verbascum** *V.* x *hybrida* Perennial, Zones 5-9. F-1 hybrid. These dramatic plants, related to mullein, have become very trendy. Strong 2–3' stalks generate gorgeous two-tone 1½" blossoms in marvelous pastel combinations of peachy rose, creamy gold and lavender, each with a fuzzy rosy-purple center. Multiple stalks on each plant are covered with short-lived flower pairs that open successively from bottom to top and make an extended show. Some rebloom in September, especially if you cut the spent flower stalks. Takes 2–3 weeks to germinate, blooms the first year. Set out 1' apart in full sun, well-drained soil. ~1,000 seeds/g. Pelleted seed sold by count. ⑤

**A**=20 seeds, $3.00 **B**=100 seeds, $14.00 **C**=300 seeds, $39.00



**5661PV Purple Top Verbena** *V. bonariensis* (90 days) Perennial in Zone 7-10, grown as an annual. Don't confuse this free-flowering Verbena with the hybrid dwarf bedding plant. Proud strong 3–4' stems almost without leaves topped with vibrant purple flowers that thrive in heat and bloom from July to October. Makes an ideal cutflower and mingles beautifully with other tall border plants. Hillary Nelson suggests combining with cosmos, lavender, purple zinnias and lemon mint. Attracts butterflies. Extremely drought-resistant. Erratic germination may be helped by 3–5 weeks' stratification prior to sowing. Start at temperatures of 70–75˚, grow on at 55–62˚. Keep growing medium fairly dry. Cutflower customers love it, but its tendency to shatter annoys some growers. ~4,000 seeds/g. ✿ ③

**A**=0.1g, $1.80 **B**=0.4g, $5.50 **C**=2g, $12.00

**Imagination Verbena** *V.* x *hybrida* (also called *V. speciosa*) *No longer available.* We have dropped this variety and recommend our replacement **5663** Ideal Mix Verbena.

**5663VI Ideal Florist Mix Verbena** *V. hybrida grandiflora* Annual. Multiple whorls of many 5-petaled flowers spiral centrally like little umbrellas on sturdy 12" stems. The 3" umbels come in shades of deep magenta, white, lilac, blue-violet and fuchsia, all accentuated by white throats. The multi-branching semi-sprawling habit makes this mix wonderful for beds and bouquets. ③ **NEW!**

**A**=0.2g, $1.60 **B**=0.6g, $4.50 **C**=3g, $15.00

**Yarrow** See **4699** and **4802**-**4804**.

## ZINNIA *Z. elegans*

Annual. Known as Youth and Old Age in the 1800s, this showy genus was named for German botany professor Johann Gottfried Zinn (1727-1759). One of the easiest to grow from seed and a favorite for bright color in Maine summers. Zinnia flower essence is used to bring out playfulness and lightheartedness.

**Culture:** Sow in a sunny spot after last frost, or start indoors for earlier blooms. They need good drainage and like heat. Jason Kafka says zinnias perform better in tunnels than in the field. With the extra heat they get so big that "they think they are in New Jersey." Cut when flowers are almost fully mature, just before pollen starts to form. Deadhead to continue production.

Germinates 3–5 days at 80–85˚, more slowly at cooler temperatures. Grow on at 70˚ days, 60–65˚ at night. Temperatures below 60˚ delay flowering and may induce chlorosis. Space at 9–12". **~110 seeds/g except where noted.**

**Benary's Giants** (85 days) The most elegant giant dahlia-flowered zinnia. The densely petaled double flowers regularly exceed 4" across, showy yet extremely refined, borne on long stems perfect for cutting. Highlighted by the uniform petal patterns, colors are particularly bright. Holds better than most even under the stress of high heat and rainfall. Absolutely breathtaking in ideal conditions. 3–3½' plants. The zinnia of choice for market growers; on a par with State Fair Mix for home gardeners. *Note:* Grower is switching back to uncoated seed. Early orders will get our remaining supply of film-coated polished seed. Later orders, except those for **5704**, will get uncoated seed. ~120 seeds per gram.

**5700BL Benary's Giants Lime** A trendy color in this superior series. ②

**A**=0.2g, $2.00 **B**=1g, $5.20 **C**=4g, $16.00

**5702SP Benary's Giants Scarlet**. ②

**A**=0.2g, $2.00 **B**=1g, $5.20 **C**=4g, $16.00

**5704BW Benary's Giants Wine** Coated. A very hot fuchsia. Available only in coated seed. All seed is held over at 90% germ. ②

**A**=0.2g, $2.00 **B**=1g, $5.20 **C**=4g, $16.00

**5707MP Benary's Giants Mix** From yellow, orange and white to scarlet, rose-pink, coral, deep red, lilac and purple. ②

**A**=0.2g, $2.00 **B**=1g, $5.20 **C**=4g, $16.00

**5711CJ Cactus Bright Jewel Mix** (75 days) Large ruffled zinnia blossoms resemble chrysanthemums. Profuse immense blooms in scarlet, orange, pink, yellow. 3' tall. ③

**A**=1g, $1.10 **B**=7g, $2.80 **C**=28g, $6.00 **D**=4oz, $15.00

**5714GM Gold Medal Mix** A formula blend of cherry, orange, pink, purple, scarlet, white and yellow dahlia-flowered blossoms 4–5" across excellent for cutting. Flowers are flat-petaled, semi-double on 3½' plants. Bred by Bodger. ③

**A**=1g, $1.10 **B**=7g, $2.80 **C**=28g, $6.00 **D**=4oz, $15.00

**5717NC Inca** Waist-high stems bear striking 3–4" single blaze-orange blooms with showy little yellow doodads (disk florets) in the center. Long stems for cutting. Flowered fluorescently from July to October at Donna Dyrek's 2008 trial. ~120 seeds/g. ③

**A**=0.5g, $1.50 **B**=1.5g, $3.00 **C**=9g, $7.50

**5719KY Oklahoma Golden Yellow** Bred specifically for cutflower growers, the Oklahoma series offers a less expensive alternative to Benary's Giants. The Oklahomas are as floriferous as Benary's with smaller 2" blossoms and comparable stem length. They bloomed for Donna Dyrek on July 2, four days before the Benary's. The 30–40" plants are taller and slightly more frost hardy. The elegant pompon blooms are slow to show cold stress or go single. 160 seeds/g. ②

**A**=0.5g, $1.50 **B**=2g, $4.50 **C**=8g, $11.00

**5725PM Pumila Mix** (Cut & Come Again) Small 2' plants with flowers 2½–3" across. Wide range of colors includes orange, yellow, white, pink, lavender and scarlet. ~175 seeds/g.③

**A**=1g, $1.10 **B**=7g, $2.80 **C**=28g, $6.00 **D**=4oz, $13.00

**5728FL Scarlet Flame** Even Gene, who doesn't like gaudy zinnias, was attracted to Scarlet Flame's elegant bright scarlet blooms. 3' stems. Predates 1934. ③

**A**=1g, $1.30 **B**=7g, $3.50 **C**=28g, $11.00 **D**=4oz, $38.00

**5731SF State Fair Mix** (90 days) Old-fashioned variety bears a rich array of huge single and double blooms on 30" plants. The blooms are much showier than those in the Gold Medal Mix with fully saturated colors that include red, magenta, purple, orange, lavender and pink. Our best-selling zinnia ranks third among all flowers. ~80 seeds/g. ②③

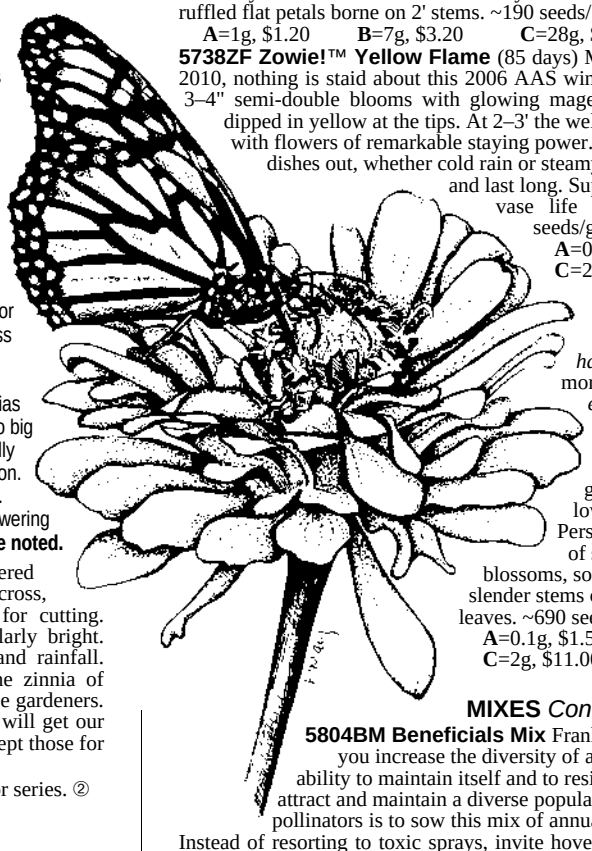
**A**=0.5g, $1.20 **B**=2g, $3.20 **C**=12g, $7.00 **D**=4oz, $24.00

**5734SW Swirls** (85 days) These zinnias wowed those who saw them in our trials with their slightly fluorescent bicolor blooms of rose and white or red and yellow. The 4" flowers are fully double to semi-double with slightly ruffled flat petals borne on 2' stems. ~190 seeds/g. ③

**A**=1g, $1.20 **B**=7g, $3.20 **C**=28g, $7.50 **D**=4oz, $22.00

**5738ZF Zowie!™ Yellow Flame** (85 days) My favorite flower variety in 2010, nothing is staid about this 2006 AAS winner. Color pops right out of 3–4" semi-double blooms with glowing magenta centers and rose petals dipped in yellow at the tips. At 2–3' the well-branched plants are loaded with flowers of remarkable staying power. Whatever our tough climate dishes out, whether cold rain or steamy heat, the blooms stay clean and last long. Superb for bouquets too, with a vase life of up to 2 weeks. ~125 seeds/g. ⑤

**A**=0.1g, $3.00 **B**=0.4g, $11.00 **C**=2g, $41.00



**5748JM Jazzy Mix** *Z. haageana* If you thought the smaller Mexican-style *haageana* zinnias were always more subdued than their gaudier *elegans* cousins, guess again. This mix will jazz up your patch with an array of pink, orange, carmine and burgundy-red blooms tipped yellow to carmine that put our old Persian Carpet to shame. Masses of sparkling semi-doubled 1½" blossoms, some with a pompon effect, on slender stems cloaked in clean bright green leaves. ~690 seeds/g. ⑤

**A**=0.1g, $1.50 **B**=0.4g, $3.50 **C**=2g, $11.00 **D**=10g, $36.00

## MIXES *Confundium fedcoensis*

**5804BM Beneficials Mix** Frank Morton teaches that "when you increase the diversity of an ecosystem you enhance its ability to maintain itself and to resist perturbation." One way to attract and maintain a diverse population of beneficial insects and pollinators is to sow this mix of annuals, biennials and perennials. Instead of resorting to toxic sprays, invite hover flies, ladybugs, lacewings, parasitic wasps, tachnids, spiders, minute pirate bugs, damsel flies and big-eyed bugs and let them devour the "bad" bugs! Something in the mix will be blooming from spring through fall. Comprised of alyssum, bachelor's button, borage, gem marigold, dill, fennel, *Phacelia tanacetifolia* or fiddleneck, caraway, parsley, golden marguerite, ajuga, basket of gold alyssum and Rocky Mountain penstemon. Should any variety become unavailable we will substitute one with similar efficacy. Sow in spring as a hedgerow in a well-prepared weed-free seedbed close to the garden in full sun. ✿ ②③

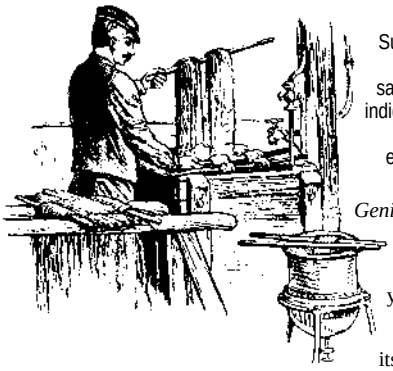
**A**=1.4g, $1.90 **B**=7g, $7.50 **C**=28g, $22.00 **D**=112g, $75.00

**5807CT Cutflower Mix** A mixture of annual flowers that can be used for cutting. Includes popular types such as aster, bachelor's button, calendula, cosmos, zinnia; also some lesser-known kinds. ✿

**A**=1g, $1.30 **B**=14g, $3.60 **C**=56g, $11.00 **D**=224g, $33.00

**5809WF Wildflower Mix** for the Northeast. A blend of 19 perennial and self-sowing annual species native to or naturalized in northeast U.S. and Canada. Includes black-eyed Susan, New England aster, gayfeather, sweet william, shasta daisy, bachelor's button, echinacea and scarlet flax. Broadcast in spring or fall in a well-prepared weed-free seedbed in a sunny spot. Seed at a rate of 1 lb/4500 sq ft. ~2,143 seeds/g. ✿ ②

**A**=1.4g, $1.10 **B**=7g, $2.80 **C**=28g, $6.50 **D**=1lb, $40.00

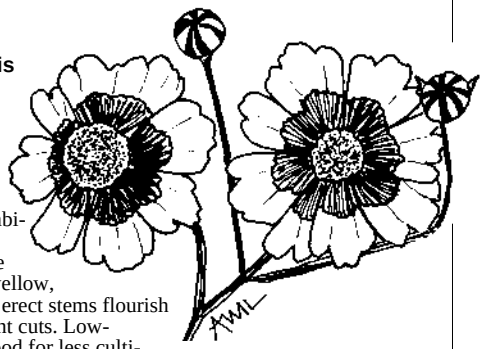


## LIVE FREE OR DYE!

Susanne Grosjean, of the Wednesday Spinners group in Downeast Maine, says, "You need only three dye plants: indigo for blue, madder for red and weld for yellow. Three primary colors, all excellent fast dye plants."

**5902DB Dyer's Broom** *Genista tinctoria* A tough naturalized perennial, Zones 2-8, originally used to make brooms but mostly valued for its profuse golden-yellow flowering tops that yield a wash- and light-fast clear yellow dye. Branching near the ground, its erect 3' stems may be harvested throughout its flowering period from midsummer to fall and dried for later use. Also has medicinal uses. Plant in full sun where it will not need to be moved as it does not transplant well. Scarify and soak the seeds to cut germination time to 2–3 weeks. Grows slowly the first year and flowers in year two. ~320 seeds/g. ②

**A**=0.2g, $1.80
**B**=0.6g, $4.00
**C**=3g, $9.00



**5904CS Dyer's Coreopsis Mix** *Coreopsis tinctoria* Annual. A beautiful native ornamental that provides a full palette of color from yellows and greens to rusts and browns—and even black, depending on the combination of plant parts and mordants. Large cosmos-like flowers in combinations of yellow, mahogany and red atop 2½' erect stems flourish in full sun and make excellent cuts. Low-maintenance and rugged. Good for less cultivated areas such as open spaces, roadsides and borders, competes well with grasses and reseeds easily. Tolerates drought. ~2,200 seeds/g. ②

**A**=0.3g, $1.10 **B**=0.9g, $2.80 **C**=4.5g, $5.20

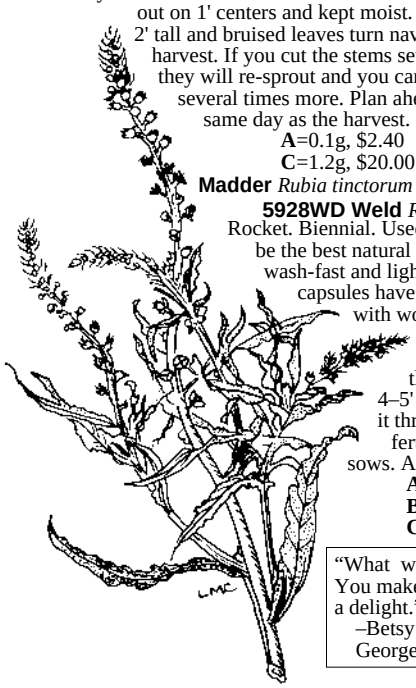
**5906HO Hopi Dye Sunflower OG** (90-100 days) *Helianthus annuus* Annual. Back with a full crop this year. A rare indigenous heirloom that the Hopis used as a natural dye source for coloring baskets purplish charcoal. "Blackest little seeds I've ever seen," says trialer Donna Dyrek. They will stain your hands purple when you collect them. Also edible and extremely easy to hull. 8' stalks with massive 12–18" main heads feature golden-yellow single petals around a dark purple-green center. Numerous side branches set all the way to the ground with smaller blossoms that make great cuts. Mound the soil around the base of the plants to prevent lodging. OT-certified. ✿ ①

**A**=1g, $1.80 **B**=4g, $5.00 **C**=20g, $15.00 **D**=100g, $40.00

**5911ND Indigo** *Polygonum tinctorium* Japanese indigo preferred by dyers in Maine. A tender annual, indigo thrives in fertile soil and likes heat and humidity. Best started indoors 6–8 weeks before the last frost, transplanted out on 1' centers and kept moist. When the plants have grown 1–2' tall and bruised leaves turn navy blue, they are ready for a first harvest. If you cut the stems several nodes up from the ground, they will re-sprout and you can harvest the re-growth, perhaps several times more. Plan ahead and prepare the dye bath the same day as the harvest. ~250 seeds/g. ②

**A**=0.1g, $2.40 **B**=0.3g, $6.80
**C**=1.2g, $20.00 **D**=4.8g, $70.00

**Madder** *Rubia tinctorum* No crop. *Not available in 2015.*



**5928WD Weld** *Reseda luteola* Known as Dyer's Rocket. Biennial. Used since antiquity, weld is said to be the best natural source of deep yellow dye, both wash-fast and light-fast. Leaves, flowers and seed capsules have the most color. When overdyed with woad, weld makes Lincoln Green, said to be the method Robin Hood and his band used for their characteristic gang color. A 4–5' member of mignonette's genus, it thrives in well-drained moderately fertile preferably alkaline soil. Self sows. Attractive to bees. ~4,760/g. ✿ ②

**A**=0.2g, $1.60
**B**=1g, $4.00
**C**=4g, $8.00

"What would we do without Fedco? You make choosing and ordering seeds a delight."
–Betsy Bangley, Hawk's Hill Farm, Georgetown, PA

## Probably Your Last Chance in 2015

**208** Black Valentine bean: Supplier is discontinuing.
**334** Black Coco bean: Supplier is discontinuing.
**602** Lancelot hybrid sweet corn: Supplier is discontinuing.
**616** Painted Hills sweet corn: Being replaced by **652** Tuxana
**626** Spring Snow hybrid sweet corn: Being replaced by **622** SugarPearl.
**930** Petite Gris de Rennes cantaloupe: Challenging to grow well.
**950** Sweet Freckles melon: Sales have been pokey.
**966** Orange Honey melon: Unless sales pick up.
**1007** Petite Yellow watermelon: Others we offer have richer flavor.
**1637** Nutty Delica squash: Supplier discontinuing, we are replacing.
**2282** Shinden Risoh daikon: Supplier has dropped, **2280** Miyashige replaces.
**2441** Prisma shallot: Supplier has discontinued, **2442** Camelot replacing it.
**2830** Skyphos lettuce: Its utility patent is against our principles.
**4008** Husk Cherry: Being replaced by **4005** Aunt Molly's Ground Cherry.
**4015** Verda Pueblo tomatillo: A possible replacement is in the wings.
**4230** Spring Shine hybrid tomato: Our customers never took a shine to it.
**4238** Luci hybrid tomato: Supplier is discontinuing.
**4962** Cerinthe: Doomed by slow sales.
**5384** Mexican Tulip poppy: Slow sales end its run.

## Dropped Varieties for 2015

**307** Black Kabouli Garbanzo OG: No crop.
**332** Cannellini bean: Replaced by **331** Silver Cloud Cannellini.
**335** Tiger Eye bean OG: Crop failure due to disease.
**337** Ireland Creek Annie bean OG: Crop failure due to disease.
**483** Beer Friend soybean: But check our website, may be back in the spring.
**559** Golden Bantam sweet corn: OP replacement in the works.
**632** Shasta hybrid sweet corn: Doomed by slow sales.
**739** Patriot pea OG: Crop failure.
**744** Progress #9 pea: Off types in the production.
**916** Oka muskmelon: Declining sales.
**1594** Long Bitter gourd: Dropped by supplier.
**1615** Squisito squash: Crop failure.
**2834** Sweet Valentine lettuce OG: Heldover seed failed germ; no new crop.
**2931** Webb's Wonderful lettuce: Heldover seed failed germ; no new crop.
**3421** Violet Queen cauliflower: Dropped by supplier, upstaged by Graffiti.
**3441** Champion collards: No crop.
**3450** Beede's Camden kale OG: Biennial seed crop will be back in 2016.
**3457** Rainbow Lacinato kale OG: No crop this year, returns in 2016.
**3621** Par-Cel cutting celery OG: No crop this year.
**3624** Ventura celery: No crop.
**3703** Klari Baby Cheese pepper OG: Crop failure.
**3744** Tangerine Pimiento pepper OG: Off-types in the production.
**3745** Odessa Market pepper: Crop failure.
**3826** Gilboa pepper OG: No crop this year, may be available in spring.
**4091** Lillian's Yellow Heirloom tomato OG: Crop failure.
**4315** Braveheart Triticale: Sales were slow.
**4511** Bodegold chamomile: No crop this year, suggest **4510** Chamomile.
**4677** Schisandra: No crop.
**4817** Red Seas ageratum: Supplier is discontinuing.
**4893** Blue Clips campanula: Wasn't much interest.
**4951** Smart Look celosia: Evidently not smart enough.
**5111** Hare's Tail: Alas, tortoise in the sales department.
**5166** Carmine larkspur: The least favored of our larkspur choices.
**5337** Twinkle phlox: The light twinkles out for this one.
**5366** Drama Queen poppy: Crop failure; she's in rehab.
**5382** Mission Bells: Mission accomplished; replaced by **5381** Jelly Beans.
**5435** Sorghum: Slow sales.
**5471** German statice: Slow sales: loses its status.
**5664** Imagination verbena: Slow sales stifle the imagination.
**5913** Madder: No crop.
**6003** Chickendive OG: Grower/breeder has discontinued production.

## Catalog # Changes

Please take note if you keep your order on your spread sheet:

| item | was | now |
|---|---|---|
| Majestic Red lettuce | 2859 | 2860 |
| Pink Lettucey | 3234 | 3233 |
| Applegreen eggplant | 3678 | 3680 |
| Galine eggplant | 3680 | 3677 |
| Aria grape tomato | 4253 | 4273 |
| Red Shiso | 4680 | 3283 |
| Chives | 4512 | 4513 |

***Plus:*** *The melons and peppers have been rearranged and nearly all of them have catalog number changes!*

Sending a **Computer-Generated Order Form?** *Please follow the exact format* of our order form.

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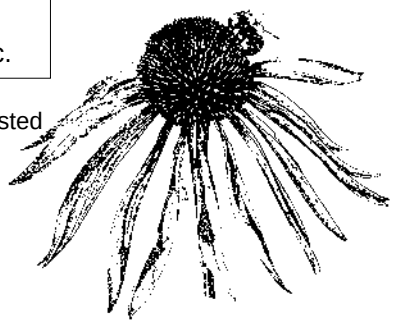

# FEDCO·SEEDS

Co-op Seed Packers

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May 8 & 9 Public Sale


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